

MITEL NETWORKS <sup>TM</sup>

# 5700 | Voice First Application

## **Administrator's Guide**

**Release 1.0**

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# PRODUCT NAMES

VCON product names may appear in the customer documentation and in the graphical user interface of this product.

Mitel Networks product names correspond to the following VCON product names:

VCON product name	Mitel Networks product name
Media Xchange Manager (MXM)	Mitel Networks 5700 Voice First Application (5700 VFA)
Falcon IP	Mitel Networks 5760 Video Conference Appliance (5760 VC)
ViGO Personal	Mitel Networks 5750 Desktop Video Appliance (5750 DV)

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**NOTE** There are minor differences between Mitel Networks products and the equivalent VCON products. Some of the illustrations that appear in this documentation represent VCON products.

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## ***About this Administrator's Guide***

This Administrator guide explains how to work with the Mitel Networks™ 5700 Voice First Application (5700 VFA) system. The following chapter summary briefly describes this guide's contents:

- |                  |  |
|------------------|--|
| <b>Chapter 1</b> | <b>Welcome to 5700 Voice First Application</b><br>Introduction to the 5700 VFA and to this Administrator's Guide   |
| <b>Chapter 2</b> | <b>Getting Started</b><br>Instructions for installing the 5700 VFA.  |
| <b>Chapter 3</b> | <b>A Quick Tour of the 5700 VFA Administrator</b><br>Brief description of the main 5700 VFA applications' screens.   |
| <b>Chapter 4</b> | <b>Administering the 5700 VFA</b><br>Procedures for configuring administrators and 5700 VFA, monitoring status within the video network, and setting up hunting and administrative groups. |
| <b>Chapter 5</b> | <b>Setting 5700 VFA System Properties</b><br>Descriptions of the various properties that comprise the 5700 VFA system configuration.   |
| <b>Chapter 6</b> | <b>Defining End Point Nodes</b><br>Procedures for defining registered end points which run Mitel Networks or third-party videoconferencing applications.                                   |
| <b>Chapter 7</b> | <b>Registering Gateways</b><br>Procedures for registering, setting up a gateway's 5700 VFA configuration and setting up available gateway services.  |
| <b>Chapter 8</b> | <b>Registering an MCU</b><br>Procedures for registering, setting up an MCU's 5700 VFA configuration, defining MCU service properties, and setting up MCU service permission groups.        |

<b>Chapter 9</b>	<b>Neighboring Zones</b> Procedures for setting up an 5700 VFA-managed network that includes more than one zone of videoconferencing users.
<b>Chapter 10</b>	<b>Registering with LDAP Directories</b> Procedures and required information for setting up the 5700 VFA configuration in online directory servers such as ILS and NDS.
<b>Chapter 11</b>	<b>Initiating Videoconferences From the 5700 VFA Administrator</b> Instructions for setting up and starting videoconferences from the Administrator application.
<b>Chapter 12</b>	<b>Setting Up Ad-hoc Videoconferences Managed by a VCB</b> Instructions for setting up Mitel Networks Conference Bridge for initiating ad-hoc multipoint videoconferences.
<b>Chapter 13</b>	<b>Customizing the 5700 VFA Administrator</b> Procedures for customizing the Administrator application according to your personal preferences.
<b>Appendix A</b>	<b>MeetingPoint End Point Properties</b> Definitions of configuration properties for MeetingPoint 4.5 (and higher) end points.
<b>Appendix B</b>	<b>5760 Videoconferencing Appliance End Point Properties</b> Definitions of configuration properties for Mitel Networks 5760 Videoconferencing Appliance end points.
<b>Appendix C</b>	<b>QoS Priority Values</b> List of available QoS priority level settings for IP Precedence and DiffServ.
<b>Appendix D</b>	<b>Using Accord™ MGC with the 5700 VFA</b> Instructions for setting up the Accord MGC's configuration for management within the 5700 VFA network.

**Appendix E      Upgrading 5760 Videoconferencing Appliance Software**

Procedures for updating your Mitel Networks 5760 VC devices to the latest software version.

**Appendix F      Setting Up The 5020 IP Telephone To Work With 5700 VFA**

Procedures for programming a “Video” key on the 5020 IP telephone.

## ***Mitel Networks Technical Support***

This Administrator’s Guide was designed to help you set up and work with your 5700 VFA easily so that you can enjoy its many features.

If a situation occurs that is not covered by the supplied documentation, please request help from our Technical Support channels. Mitel Networks Corporation will make its strongest efforts to help you resume your videoconferencing as soon as possible.

- ☐ Contact your local Mitel Networks distributor, and request assistance from its technical support department.





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## Index





# 1 **WELCOME TO 5700 VOICE FIRST APPLICATION**

Congratulations on your entry into the revolutionary world of Mitel Networks 5700 Voice First Application (5700 VFA). The 5700 VFA centralizes the management of Video over IP communication within an enterprise-wide network.

## 1.1 **About the 5700 VFA Server**

The 5700 VFA provides centralized videoconferencing management services for corporate networks running on IP. It transfers many administration and configuration tasks from the individual computers, called *end points*, to the network, where they belong.

The 5700 VFA provides the following services:

- ☐ H.323 Revision 2-compliant Gatekeeper functions, including login and security:
  - Auto-discovery and registration of nodes, such as videoconferencing end points, gateways, MCUs and their respective services.
  - Address translation of IP addresses, H.323 aliases, E.164 numbers, e-mail addresses and URLs.
- ☐ Status monitoring of network videoconferencing activity
- ☐ Call Accounting
- ☐ Supplementary IP Telephony services, such as Call Forwarding, Pickup and Hunting Groups
- ☐ Expansion of point-to-point videoconferences to multipoint sessions (*ad-hoc conferencing*)
- ☐ Search capabilities for nodes in zones managed by other 5700 VFAs and gatekeepers.
- ☐ Simplified gateway and MCU dialing for registered end points
- ☐ Control of the usage of gateway and MCU services by registered users
- ☐ Bandwidth management for allocating available bandwidth to registered nodes
- ☐ Compatibility with external online directory services (LDAP)
- ☐ Integrated Videoconferencing Bridge (VCB) - optional.

### 1.2 5700 VFA Administrator

The Administrator application provides an interface for performing the management and monitoring of the 5700 VFA network. It may be installed on the same computer as the 5700 VFA Server as well as on additional computers, therefore providing remote management capability.

The Administrator application enables:

- ☐ Remote configuration of VCON MeetingPoint, Mitel Networks 5760 Video Conference Appliance, and VCB nodes
- ☐ Registration, configuration and deletion of H.323 end points, such as Mitel Networks and other vendors' H.323 Rev. 1 & 2-compliant videoconferencing systems
- ☐ Registration, configuration and deletion of Gateways, MCUs and their respective services
- ☐ Configuration of videoconferencing policies between the local 5700 VFA and zones of nodes managed by other 5700 VFAs and gatekeepers
- ☐ Monitoring of connection states, login status, and events logging
- ☐ Creation of hunting groups (groups of end points that may be called through one common number)
- ☐ Creation of administrative groups that reflect the organization's corporate structure and enables efficient configuration of these groups' stations
- ☐ Setting limits on the permitted bandwidth usage
- ☐ Initiation and hangup of point-to-point calls between two end points
- ☐ Network usage reports (Call Details Records and Asset Management Reports).

### 1.3 *Glossary of 5700 VFA Terms*

This section lists special 5700 VFA terms that are commonly used in this guide.

<b>5700 VFA Node</b>	A node that is registered in the local 5700 VFA
<b>Ad-hoc conference</b>	A videoconference that expands from a point-to-point session to a multipoint session while it remains open. Additional end points are "invited" by one of the parties.
<b>Administrator</b>	User whose responsibilities may include monitoring and managing the 5700 VFA network. Three levels of Administrator provide various rights for managing, controlling, monitoring, and viewing information.
<b>End point</b>	An H.323 terminal, Gateway, or MCU. An end point can call and be called. It generates and/or terminates information streams.
<b>Gatekeeper</b>	Application that controls registration (login) into a computer or network, translates addresses, and manages bandwidth within a network.
<b>Gateway</b>	A network device that enables communication between two different types of networks, such as IP and ISDN telephony.
<b>Hunting group</b>	A group of users within an organization that may be reached through one common number.
<b>LDAP</b>	Lightweight Directory Access Protocol - used to access online directory servers, for registering and searching for other online users.
<b>Login</b>	The process of gaining entry, or registering, into a computer or a network.
<b>MCU</b>	Multipoint Control Unit - a device used to connect three or more end points in a single video meeting.
<b>Neighbor Node</b>	A node that is registered in a neighboring zone.
<b>Neighboring Zone</b>	A zone that is known and listed in the local 5700 VFA.
<b>Node</b>	A device on a LAN. For example, end points, gateways and MCUs are nodes.

<b>Service</b>	A configuration for the allocation of available bandwidth during videoconferences through gateways or MCUs.
<b>Template</b>	A complete set of default properties for new nodes.
<b>Zone</b>	A collection of nodes that 5700 VFAs and gatekeepers register and manage.

## 2 GETTING STARTED

### 2.1 Minimum System Requirements

The components of the 5700 VFA may be installed and operated on any computer that meets the following minimum requirements:

#### 5700 VFA Server

For optimum performance, install the 5700 VFA Server on a workstation or server that contains only the Windows NT 4.0 operating system with Service Pack 5 or higher. We recommend that no other applications were installed on it at any time. The presence of other applications (even if they are not open) may cause unpredictable operating results.

Operating System	Microsoft Windows NT 4.0 with Service Pack 5 or higher
Minimum CPU Speed	Pentium 400 Mhz
Recommended Memory	at least 128 Mb
Minimum Free Disk Space	200 Mb

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**NOTE**

1. No other H.323 application may run at the same time as the 5700 VFA.
2. No other application may use the computer's default H.323 TCP/IP ports.
3. 5700 VFA installation program installs MDAC 2.7 which upgrades the ODBC driver and MSDE 2000.

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#### 5700 VFA Administrator Application

The 5700 VFA Administrator application may be installed on any workstation(s) on the network that meet the following specifications:

Operating System	Microsoft Windows 98, Windows 2000, NT 4.0 with Service Pack 5 or higher.
Minimum CPU Speed	Pentium 166 Mhz
Minimum Memory	64 Mb
Minimum Free Disk Space	10 Mb

## **VCON Conference Bridge**

The VCON Conference Bridge (VCB) may be installed on any workstation(s) on the network that meet the following specifications:

Operating System	Microsoft Windows 2000 or NT 4.0 with Service Pack 5 or higher.
Minimum CPU Speed	Pentium 300 Mhz
Minimum Memory	128 Mb
Minimum Free Disk Space	10 Mb
Compatibility Issues	<ul style="list-style-type: none"><li><input type="checkbox"/> 5700 VFA Administrator or VCON MediaConnect 8000 may be installed on the same computer.</li><li><input type="checkbox"/> 5700 VFA Server and/or other videoconferencing applications must not be installed on the same computer.</li></ul>

## 2.2 Installing the 5700 VFA Server

The 5700 VFA server should be installed on a Windows NT 4.0 (or higher) computer dedicated to the management of your organization's videoconferencing network.

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**NOTE** If a previous version of the 5700 VFA Server is installed on the computer, you must uninstall it before installing this version.

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### ► To install the 5700 VFA Server

1. Insert the 5700 VFA Setup CD-ROM in your computer's CD-ROM drive.
2. If Autorun is enabled, the Installation program appears automatically.  
  
Otherwise, click **Start** in the Windows taskbar and then click **Run**. Browse to the CD-ROM drive and double-click the *Setup.exe* file. The Installation program appears.
3. Select **5700 VFA Server**.
4. Follow the instructions in the Setup Wizard, clicking **Next** to continue. The installation program installs the Server components.

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**NOTE** If upgrading from a previous 5700 VFA version, the Installation program detects it. Click **OK** to continue. The Installation program saves the previous version's database settings, except for Call Details Records (CDRs) and the Event Log.

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5. The Wizard asks where to install and use Microsoft SQL database. To install it on the same computer as the 5700 VFA (default setting), click **Next**. To install it on a different computer, click **Choose Location** and then enter the appropriate computer name or IP address.

The installation program builds a system database, which requires a few minutes.

6. At another stage, the Enter Serial Number dialog box appears. Type the serial number that's on the supplied key code agreement and click **OK**.

If you received a version for evaluation, click **Cancel**. To continue installing the evaluation version (limited no. of users for a short period), click **Yes** to confirm.

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**NOTE** Whether this is a first-time installation or an upgrade, your initial key code is valid for 30 days. For instructions on making it permanent or increasing the permitted number of registered end points, see “Replacing the License Key” on page 2-7.

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7. When the Wizard informs that the installation is complete, click **Finish**.
8. To install the 5700 VFA Administrator application on the same computer, keep the Installation program open (see the next section).

To exit the Installation program, click **Exit**.



## 2.3 Installing the 5700 VFA Administrator

The Administrator application may be installed on the same computer as the above applications and/or other workstations from which you may perform remote administration.

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**NOTE** The new version of Administrator may be installed over a previous version of the application. You do not need to uninstall the previous version.

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### ► To install the 5700 VFA Administrator

1. Insert the 5700 VFA Setup CD-ROM in your computer's CD-ROM drive.
2. If Autorun is enabled, the Setup wizard will appear automatically.  
  
Otherwise, click **Start** in the Windows taskbar and then click **Run**. Browse to the CD-ROM drive and double-click the *Setup.exe* file. The Setup wizard appears.
3. Select **5700 VFA Administrator**.
4. Follow the instructions in the wizard, clicking **Next** to continue.
5. The wizard provides a checkbox for installing the 5760 VC Upgrade Utility, which provides you with the ability to upgrade the software version of Mitel Networks 5760 VC's connected to your organization's network. If your organization has Mitel Networks 5760 VC's, we recommend that you select to install this application.  
  
Click **Next** to continue.
6. If you selected to install the 5760 VC Upgrade Utility, the wizard proceeds to its installation process. Follow the instructions in the wizard, clicking **Next** to continue to the next page.
7. When the Wizard informs that the installation is complete, click **Finish**.
8. To exit the Installation program, click **Exit**.

### 2.4 Installing the VCON Conference Bridge

The VCON Conference Bridge (VCB) may be installed on the same computer as the 5700 VFA Administrator or a VCON MediaConnect 8000. However, do not install it on the same computer as the 5700 VFA Server or other videoconferencing system.

---

**NOTE** The VCB is available only for licensed users of the combined VCON Conference Bridge and Conference Control Options. If you want to add these options to your 5700 VFA, please contact your local Mitel Networks distributor.

---

#### ► To install the VCB

1. Insert the 5700 VFA Setup CD-ROM in your computer's CD-ROM drive.  
If Autorun is enabled, the Setup wizard will appear automatically.  
Otherwise, click **Start** in the Windows taskbar and then click **Run**.  
Browse to the CD-ROM drive and double-click the *Setup.exe* file.
2. In the Setup window, select **VCB**.
3. Follow the instructions in the Setup wizard, clicking **Next** to continue.
4. At one stage, the wizard provides a choice between installing the VCB on the same computer as VCON's MediaConnect 8000 or installing it on a computer that does not run a videoconferencing application.
  - To install it on MediaConnect 8000's computer, select **Yes**. The computer must have two IP addresses to support this configuration. In the wizard, enter the IP address for the VCB (the other address is reserved for the MediaConnect 8000).
  - Otherwise, select **No**.Click **Next**.
5. At another stage, the wizard requires the address of the 5700 VFA Server with which the VCB registers and provides services. Enter the 5700 VFA Server's IP address or DNS name. Click **Next**.
6. After completing the Setup wizard, restart the computer.

---

**NOTE** If the address of the associated 5700 VFA changed, if 5700 VFA is uninstalled and reinstalled, or if VCB will work on a different 5700 VFA: In the **Start** Menu, point to **Programs, Mitel Networks, VCB**, and click **Update 5700 VFA Address**.

---

## 2.5 Replacing the License Key

The following circumstances require replacement of your 5700 VFA license key:

- ☐ Replacing a temporary demo version with a permanent, purchased version.  
Your initial key code is valid for 30 days.
- ☐ Changing the number of permitted registered end points.
- ☐ Adding optional features to your 5700 VFA.

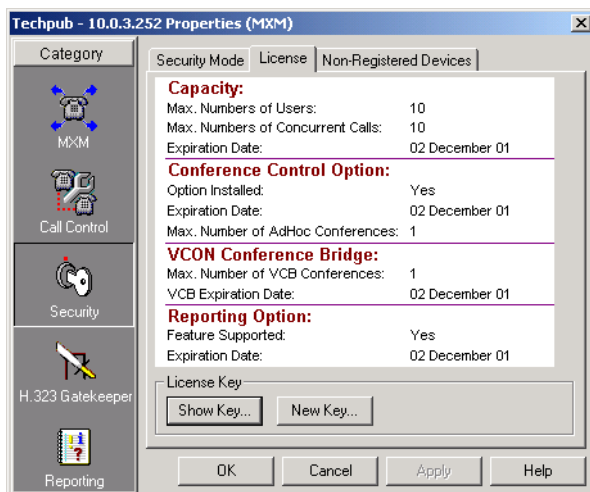
---

**NOTE** This process requires that an initial 5700 VFA is already set up. For instructions on setting up an 5700 VFA, see Chapters 4 and 5.

---

### ► To replace your 5700 VFA license key

1. Send the file, `c:\Program Files\Mitel\userkey.txt` to your local Mitel Networks distributor. You will then receive a new key code from the distributor.
2. Save the new license code file to a location on your network.
3. Run the 5700 VFA Administrator application. In the Administrator window, right-click the 5700 VFA node at the top, point to **Property** (opening another menu), and click **License**. The **License** tab appears.



*5700 VFA System License Properties*

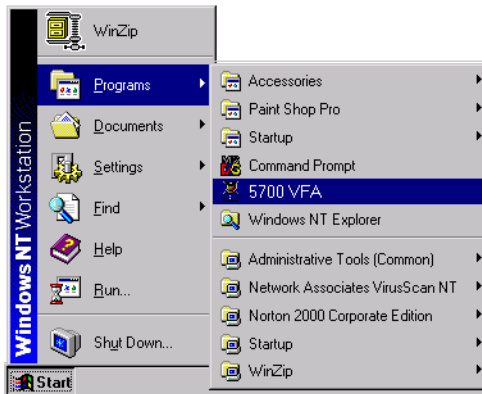
4. Click **New Key**. The Open dialog box appears.
5. Browse to the location where you saved the license code file. Click **Open**.
6. When prompted to apply the license code, click **OK**.
7. Click **OK** to implement the license change and close the dialog box.

### 2.6 Running the 5700 VFA

The 5700 VFA server opens automatically during the host computer's startup, and runs unseen as an NT service.

#### ► To run the 5700 VFA Administrator

- ☐ In the Windows desktop, click **Start**, point to **Programs** and click **5700 VFA**.

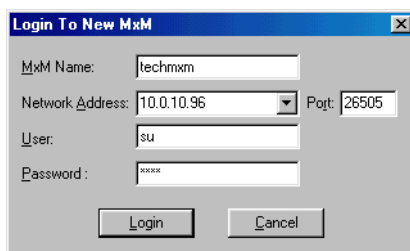


*Starting the 5700 VFA Administrator*

When you open the 5700 VFA Administrator application for the first time, you must open a new 5700 VFA object in the Main View.

## ► To open a new 5700 VFA

1. In the **5700 VFA** menu, click **Log in to New 5700 VFA**.



### *Opening a New 5700 VFA*

2. Enter a name for the 5700 VFA and the IP network address of the computer that it's installed on. Then, enter the default User name and default password during the startup. Afterwards, you may change these values to meet your own operating needs (see "Adding an Administrator" on page 4-1).

**Default user**            su

**Default  
password**            1234

3. Click **Login**. The new 5700 VFA is displayed in the Main View of the Administrator application. You can expand the 5700 VFA to see an initial system tree (see Chapter 3, "A Quick Tour of the 5700 VFA Administrator," for more details).
4. To save the administrator application configuration, open the **File** menu and click **Save As**. Save the configuration as a **.vca** file.

## **2.7 Basic 5700 VFA Operations**

This section will list the various tasks required to set up the 5700 VFA for a typical video network. At the end of each description, the location of detailed explanations are provided.

1. Set up administrators.

Enter the administrators and their various privileges into the system. The available privilege levels are Super User, Monitor System and View System Properties. See “Setting Up Administrators” on page 4-1.

2. Set up the 5700 VFA configuration.

Define the various properties of the system’s configuration, such as connection details, open or closed mode for registering end points, and so on. See Chapter 5, “Setting 5700 VFA System Properties.”

3. Define default settings for end points and other nodes in templates.

A template includes the characteristic properties for a type of node or service. Any new created item in the system will initially have the default properties defined in the template. See “Setting Up Templates” on page 4-28.

4. Set up end point configurations.

End points may be registered with the default properties defined in a template or be set following their login requests. See Chapter 6, “Defining End Point Nodes.”

5. Create and set up hunting groups.

A hunting group includes a series of nodes that may be grouped together within an organization for a variety of reasons, but may be reached through one common address. See “Adding Hunting Groups” on page 4-30.

6. Create and set up administrative groups.

Administrative Groups of nodes in the Main View can help maintain a visual structure for nodes and the teams and departments to which they belong. This also makes it easier to control end point properties that need to be common within a team or department, such as limiting the available bandwidth for the group. See “Adding an Administrative Group” on page 4-35.

7. Set up the 5700 VFA configuration in a Lightweight Directory Access Protocol (LDAP) online directory server.

By listing 5700 VFA registered users in an LDAP server, they will be able to locate and call all other users listed in the same directory. The 5700 VFA supports several LDAP server applications. See Chapter 10, “Registering with LDAP Directories.”

8. Prepare the 5700 VFA to provide gateway dialing services to ISDN connections for the registered end points.

If gateways register with the 5700 VFA, you must set their 5700 VFA configurations in the Administrator application. Then, you have to define the available services. See Chapter 7, “Registering Gateways.”

9. Set up the 5700 VFA configurations for Multipoint Control Units (MCU) that register with the 5700 VFA.

MCUs are used for connecting registered end points with a number of other end points in a multipoint videoconference. MCU services are available after the particular MCU is granted login permission to the 5700 VFA. See Chapter 8, “Registering an MCU.”

10. If your organization has more than one network of videoconferencing users, set up the 5700 VFA configurations for additional zones managed by other 5700 VFAs or gatekeepers on your 5700 VFA Administrator application.

The configuration of additional zones enables end points registered in the local 5700 VFA to engage in videoconferences with end points in these other zones. You can set bandwidth allocation, enable inter-zone Call Details Records (CDR) generation, and other inter-zone videoconferencing management policies. See Chapter 9, “Neighboring Zones.”



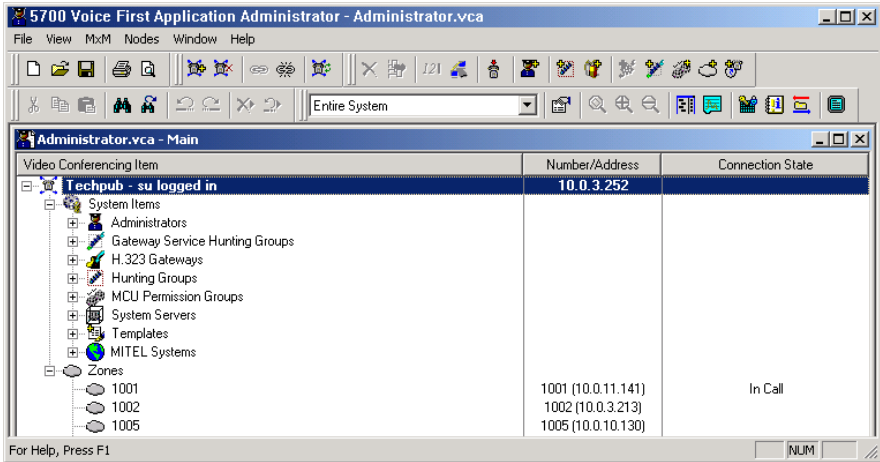


### **3     *A QUICK TOUR OF THE 5700 VFA ADMINISTRATOR***

Your work with the 5700 VFA takes place inside the Administrator application, which provides several elements and tools for performing the system management tasks.

In addition, the Administrator application provides various views and tables:

<b>Main View</b>	Displays a connected 5700 VFA and its registered nodes, hunting groups, and templates. From this window, you can view status, monitor activity, and configure properties of these registered users.
<b>Node Status</b>	Displays connection information about specific nodes that you want to monitor.
<b>Login Status</b>	Displays nodes that tried to register but were denied login - you can monitor registration and login procedures for nodes.
<b>Event Log</b>	Displays information about system events and operating conditions.
<b>LDAP Servers</b>	Displays information about the various online directories in which this 5700 VFA lists its registered nodes.



*The Administrator Application Window*

### 3.1 The Main View

Information about the managed 5700 VFA network(s) appears in the Main View. These include:

- Connected 5700 VFAs
- Administrators and their privileges
- Registered nodes and services
- Neighboring 5700 VFAs and Gatekeeper zones
- User numbers and addresses for all registered nodes, services and zones
- Connection and call status.

#### Connected 5700 VFAs

An Administrator may log in multiple 5700 VFAs. Each logged-in 5700 VFA is represented in the Main View by an entry that has an expandable system tree. When this tree is expanded, you can view nodes (such as Mitel Networks users, gateways, MCUs, and other administrators) that have logged in to that particular 5700 VFA. In addition, associated hunting groups, templates, and neighboring zones are shown in the system tree.

The system tree also shows units that tried to register but were not accepted automatically. In these cases, you have to grant login permission and set up the units' 5700 VFA properties.

For each 5700 VFA the Administrator application stores property information such as name/address, login settings, and various network settings (connection, timeouts, bandwidth management, etc.). For more information, see Chapter 5, “Setting 5700 VFA System Properties”.

## Registered Nodes

The 5700 VFA supports the registration of Mitel Networks and other H.323 end points, administrators, gatekeepers, gateways, MCUs, gateway services and MCU services. In this Administrator’s Guide, registered nodes are also referred to as *5700 VFA nodes*.

These nodes are visible when the system tree is expanded. For each of these items, the Administrator application stores property information such as name/address, bandwidth limits, online directory (LDAP) registration, and more.

The screenshot shows the 'Administrator.vca - Main' window. The system tree on the left lists various categories, and the right pane shows details for the selected item. Arrows from labels on the left point to specific items in the tree:

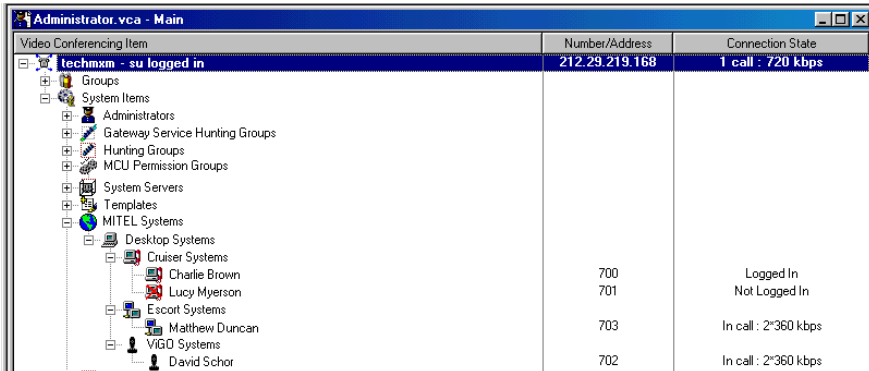
- Registered Administrators** points to the 'Administrators' folder.
- Created Hunting Group** points to the 'Gateway Service Hunting Groups' folder.
- Registered Gateway** points to the 'H.323 Gateways' folder.
- Registered MCU** points to the 'H.323 MCUs' folder.
- MCU Permission Group** points to the 'MCU Permission Groups' folder.
- Registered Mitel Networks Users** points to the 'MITEL Systems' folder.
- Neighboring Zones** points to the 'Zones' folder.

The right pane displays a table with the following data:

Video Conferencing Item	Number/Address
techmxm - su logged in	212.29.219.201
Groups	
System Items	
Administrators	
Gateway Service Hunting Groups	
Default GW Service Hunting Group	
RV Services	55
H.323 End Points	
H.323 Gateways	
212.29.219.201	212.29.219.201
H.323 MCUs	
212.29.219.205	212.29.219.205
Hunting Groups	
MCU Permission Groups	
Def MCU Service Permission Group	
System Servers	
Templates	
MITEL Systems	
Desktop Systems	
Cruiser Systems	
Charlie Brown	700
Escort Systems	
Matthew Duncan	703
ViGO Systems	
David Schor	704
Rachel	706
C-150	701
demo	705
Zones	
IP-MXM-GK	818 [10.0.3]
Tech Lab	1006 [10.0.3]

For Help, Press F1

5700 VFA Nodes and Hunting Groups



Video Conferencing Item	Number/Address	Connection State
<b>techmsm - su logged in</b>	<b>212.29.219.168</b>	<b>1 call : 720 kbps</b>
Groups		
System Items		
Administrators		
Gateway Service Hunting Groups		
Hunting Groups		
MCU Permission Groups		
System Servers		
Templates		
MITEL Systems		
Desktop Systems		
Cruiser Systems		
Charlie Brown	700	Logged In
Lucy Myerson	701	Not Logged In
Escort Systems		
Matthew Duncan	703	In call : 2*360 kbps
ViGO Systems		
David Schor	702	In call : 2*360 kbps

*Displaying Call Status in the Main View*

### Performing Tasks in the Main View

For performing tasks in the Main View, the Administrator application provides access to commands in:

- Menu Bar** Located at the top of the Administrator application. The menus contain all of the commands required to work in the workspace.
- Toolbars** Located below the menu bar. The toolbars contain many of the commands required to work in the workspace. The displayed toolbars may be customized to provide the commands that you use the most.
- Shortcut menu** Opens when you right-click an item in the system tree. The shortcut menu contains only commands that relate to the selected item.

### Multiple Selection

To perform an identical task on more than one object, select those objects using the standard Windows selection operations (<Shift>click, <Ctrl>click). You can then drag them to another location in the system tree (for example, into an administrative group), change specific common properties, delete them, or change their 5700 VFA directory numbers.

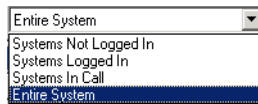
## Filtering the Main View

You can control the amount of information that appears in the Main View by selecting filters according to the details that are important to you. You can set filtering according to the following criteria:

- Entire System
- Systems Not Logged In
- Systems Logged In
- Systems In Call

### ► To filter the main view

- ☐ In the Main View toolbar, open the Filter list and choose one of the options.











*Main View Display Filters*

### 3.2 The Node Status View

The Node Status View makes it easier to see the connection information only about specific nodes instead of viewing the entire system tree. You can monitor the following:

- End points
- Administrator nodes
- Gateways and services
- MCUs and services
- Gatekeeper
- LDAP proxy

Right-click the Node Name of the entry to open a shortcut menu that contains commands that relate to the selected item.

	Node Description	Node Number	Status	Connection State	Bandwidth (kbps)	Audio Codec	Video Codec
	David Schor	1001		Talking to 1004	2*360	G.722 64k	H.261 CIF
	Rachel Nave	1004		Talking to 1001	2*360	G.722 64k	H.261 CIF
	Gary Rose	1011		Not Logged In	---	---	---
	FalconTECH	1009		Logged In	---	---	---

*Node Status Table*

### 3.3 The Login Status View

The Login Status View lists nodes that tried to register, but were not given login and registration permission. This table makes it easier to monitor registration and login procedures for specific nodes instead of viewing the entire system tree.

Login Category	Network Address	Alias	Login Name	Login Status
Desktop	212.29.219.213	demo	demo	Login Permission Requested
▶ Falcon IP	10.0.10.126	FalconTECH	FalconTECH	Login Permission Requested

*Login Status View*

### 3.4 The Event Log

The Event Log displays information about system events and operating conditions. You can refer to it for troubleshooting and isolating a problem.

The following illustration shows all the types of information (according to column) that the Event Log provides. If you want to display only a few important details, you can define filters that reduce the amount of displayed records according to various criteria.

Handled	Name	Severity	Date/Time	Application Type	Network Address	Error Code	Details
<input type="checkbox"/>	FalconTECH	Information	08/13/01 15:35:04	Falcon IP	10.0.10.126	1100	Register Accepted (H323 Channel).
<input type="checkbox"/>	FalconTECH	Information	08/13/01 15:35:02	Falcon IP	10.0.10.126	1100	Register Accepted (Data Channel).
<input type="checkbox"/>	MoM	Information	08/13/01 15:35:02	MMX	10.0.3.252	1300	Node at IP 10.0.10.126 logged in successfully.
<input type="checkbox"/>	su	Information	08/13/01 14:59:38	Administrator	10.0.11.116	1800	Remote call initiation
<input type="checkbox"/>	VFOO - Lab	Information	08/13/01 14:58:27	Desktop	10.0.1.230	1100	Register Accepted (H323 Channel).
<input type="checkbox"/>	MoM	Information	08/13/01 14:58:27	MMX	10.0.3.252	1300	Node at IP 10.0.1.230 logged in successfully.
<input type="checkbox"/>	---	Information	08/13/01 14:34:14	H.323 Gatekeeper	10.0.3.252	1	EP in 10.0.10.126 was disconnected because of KEEP_
<input type="checkbox"/>	FalconTECH	Information	08/13/01 13:01:14	Falcon IP	10.0.10.126	1100	Register Accepted (Data Channel).
<input type="checkbox"/>	MoM	Information	08/13/01 13:01:14	MMX	10.0.3.252	1300	Node at IP 10.0.10.126 logged in successfully.
<input type="checkbox"/>	FalconTECH	Information	08/13/01 13:01:07	Falcon IP	10.0.10.126	1100	Register Accepted (H323 Channel).
<input type="checkbox"/>	MoM	Information	08/13/01 13:01:02	MMX	10.0.3.252	1107	Register Rejected (Data Channel) - Viol For Administrat

*Event Log*

### 3.5 LDAP Servers

The LDAP Servers View provides information about the 5700 VFA connection and registration in an LDAP (Lightweight Directory Access Protocol) online directory. The administrator may list the 5700 VFA and its registered nodes in any one of these online directories.

Server Type	Server Name	Host Address	Host Port	Refresh Connection Interval	Default Directory	Domain	Us
ILS	ILS	Default_ILS_Server	389	60	o=Microsoft,objectClass=RTPerso		
Exchange	Exchange	Default_Exchange_Serv	389	0	cn=VXM,cn=recipients,ou=Site_N	Default_Domain	Default
NDS	NDS	Default_NDS_Server	389	0	ou=Organization_Unit,o=Organizat		Default
Vfin2000	W2K	Default_W2K_Server	389	0	ou=Organization_Unit,dc=Default		Default

*LDAP Servers View*





## 4 ADMINISTERING THE 5700 VFA

This chapter provides instructions for organizing your 5700 VFA Administrator system so that you can manage your organization's videoconferencing network. The tasks include:

- ☐ Setting Up Administrators
- ☐ Editing Nodes
- ☐ Status Monitoring
- ☐ Setting Up Templates
- ☐ Adding Hunting Groups
- ☐ Adding an Administrative Group
- ☐ Adding a Short Dial Number

### 4.1 *Setting Up Administrators*

#### **Adding an Administrator**

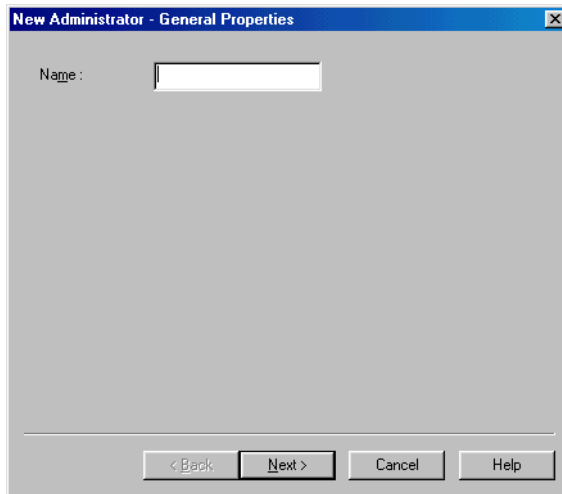
At any time, you can register additional administrators to the 5700 VFA. Each administrator must have an administration level (privileges) and a password.

In addition, you can change the privileges and other properties of the registered administrators at any time.

#### **► To add an Administrator**



1. Click the **New Administrator** button. The New Administrator Properties dialog box appears.
2. Type the Administrator's **Name**. Click **Next**.



*New Administrator - General*

3. Enter the following privileges and security information and then click **Next**:

**Administration Level**

Defines the level of activity allowed for the selected Administrator. The available options are:

- ☐ **Monitor System** - The Administrator may only observe the Main View and the Node Status View.
- ☐ **View System Properties** - The Administrator may only observe the Main View, the Node Status View, and view other nodes' properties.
- ☐ **Super User** - The Super User may change node and system configurations, in addition to the activities allowed for the other options.

**Change Password**

In the **New** box, type a new password for the new Administrator. In the **Confirm** box, type the new password again.

**New Administrator - Administrator Properties**

Administration Level: Monitor System

Change Password

New:

Confirm:

Note: If you leave the password fields blank, the password will not be changed.

< Back   Next >   Cancel   Help

#### *New Administrator - Administrator Properties*

4. Click **Finish** to complete the setup. A new administrator appears in the Main View under the **Administrator** icon.

## Changing Administrator Properties

If necessary, you may change the properties of existing administrators.

### ► To change an administrator node's properties

1. In the Main View, expand the Administrator group to view a list of Administrators.
2. Double-click an Administrator to open the Properties dialog box.
3. Change the appropriate properties. For a description of them, see “Adding an Administrator” on page 4-1.
4. Click **OK** to complete the change. If you want to discard the change, click **Cancel**.

## 4.2 Editing Nodes

### Adding Nodes

After a node connects to the 5700 VFA, it is added to the 5700 VFA database. The 5700 VFA may automatically accept the registration attempt, require manual registration by the administrator, or reject the attempt.

### Granting Login Permission

To receive login requests, the 5700 VFA may be in Open Mode for certain types of nodes, and/or in Closed Mode for all other nodes.

#### **Open Mode**

For **VCON or Mitel Networks end points** allows automatic login to all VCON or Mitel Networks end points that register with the 5700 VFA, (5750 Desktop Video Appliance, 5760 VC, Escort, Cruiser 150/384,MediaConnect 6000/8000, VCON Conference Bridge).

For **non-Mitel Networks end points** allows automatic login to any non-Mitel Networks H.323 videoconferencing end point that registers.


For **MCUs** allows automatic login to any MCU that registers.

For **Neighboring Gatekeepers (Zones)** allows the 5700 VFA to list any neighboring zones management device (5700 VFA or gatekeeper) that contacts it (see Chapter 9, “Neighboring Zones.”).

#### **Closed Mode**

The administrator can manually grant login permission to nodes or reject them by ignoring their requests.

For nodes registering in Closed Mode (gateways cannot be registered automatically), a Login Request entry appears on the system tree in the Main View.

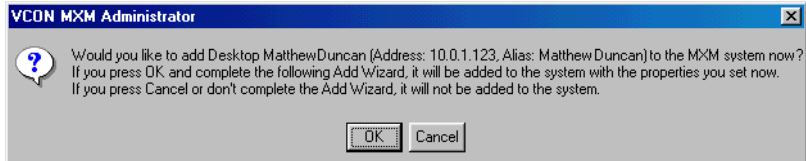
Video Conferencing Item	Number/Address	Connection State
 <b>techmxm - su logged in</b>	<b>10.0.3.252</b>	<b>No Calls</b>
 Login Requests		
 Matthew Duncan	10.0.1.123	

*Login Request Indication*

### ► To grant login permission

1. Expand the Login Request item.
2. Right-click the item name and then click **Grant Login Permission**.

A message appears, asking if you want to register the node now.



#### *Node Registration Request*

3. Click **OK** if you want to manually set the node's properties, such as directory number or call forwarding. The Add Wizard appears (for definitions of the node properties, see "Setting End Point 5700 VFA Properties" on page 6-3). The original property values are the default values defined in the node type template (see "Setting Up Templates" on page 4-28).

If you click **Cancel**, the node will not log in, but remains under the Login Requests object until you delete it (and the node stops trying to log in). See the next section, "Deleting a Login Request".

4. Change properties according to your specifications, or keep the default settings. When you finish each page of the wizard, click **Next**.
5. When you finish the last page, click **Finish**.

The node is registered. It appears as an entry in an appropriately labelled location of the system tree.

---

**NOTE** If the registering node is a MeetingPoint 4.5 (or higher) station, the login process does not continue automatically after you click **Finish**. Instruct the node to log in again (user must click **Connect**) in order to complete the registration.

---

### Deleting a Login Request

In Closed mode, you may choose to reject login requests.

#### ► To delete a login request

- ☐ Right-click the node and then click **Delete Login Request**. Click **Yes** to confirm.

---

**NOTE** If the node continues trying to register, ask the user to try logging in to another gatekeeper or to operate stand-alone.

---

### Setting a Node's Properties

The 5700 VFA and all of its registered nodes have definable properties, or characteristics, which define their functionality and operation. Setting up and maintaining these properties is the key to efficient videoconferencing network management. At any time, an Administrator with Super User privileges can change properties of a registered node.

In addition, the videoconferencing configurations of MeetingPoint 4.5 (and higher) and 5760 VC end points may also be edited. For MeetingPoint end point configuration, see Appendix A, "MeetingPoint End Point Properties." For 5760 VC configuration, see Appendix B, "5760 Videoconferencing Appliance End Point Properties."

#### ► To set a node's properties

1. In the Main View, browse the system tree until you find the node that you want to edit. If necessary, click a category's plus sign to expand the tree and display additional items.
2. Right-click the node, point to **Property**, and then click the specific property type. The node's Properties dialog box opens to the property type that you clicked.

-or-

Double-click the node. The node's Properties dialog box opens to the **General** tab.

3. Change any appropriate properties.

If you want to continue to another property group, click that group's tab. In dialog boxes with many tabs, you may have to click the right or left arrow on the tab row to access all of them.

4. Click **OK** to implement all the changes and close the dialog box.

## Finding Nodes and Objects in the Administrator

The Find and Find Next utilities help you search for specific items in the 5700 VFA Administrator. This feature is very useful if your enterprise's network is large and not all nodes are visible in the Administrator application window.

### Find in Main View

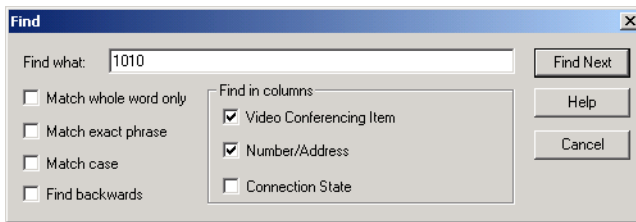
In the Main View, you can search for any words, phrases or numbers in all of the columns.

#### ► To find nodes and objects in the Main View

1. To search the whole system tree, click at the top of the Main View.



2. Click the Find button. The Find dialog box appears.



*Find Dialog Box*

3. In the **Find What** box, type a name and/or number.
4. If necessary, define additional search parameters:

#### **Match whole word only**

Select this option to match only complete words or phrases. For example, if you enter **Gate**, the search ignores the word, "Gateway".

If you want to find characters that may be part of a longer word or part of a phrase, deselect this option.

### Match exact phrase

Select this option to match only complete phrases. For example, if you enter **Gateway Hunting Group**, the search ignores any items including only the word, “Gateway”.

### Match case

Select this option to match items whose capitalization is identical to the item in the **Find What** box. For example, if you enter **GW**, the search ignores any items that include “gw” or “Gw”.

To find all matching items, regardless of capitalization, deselect this option.

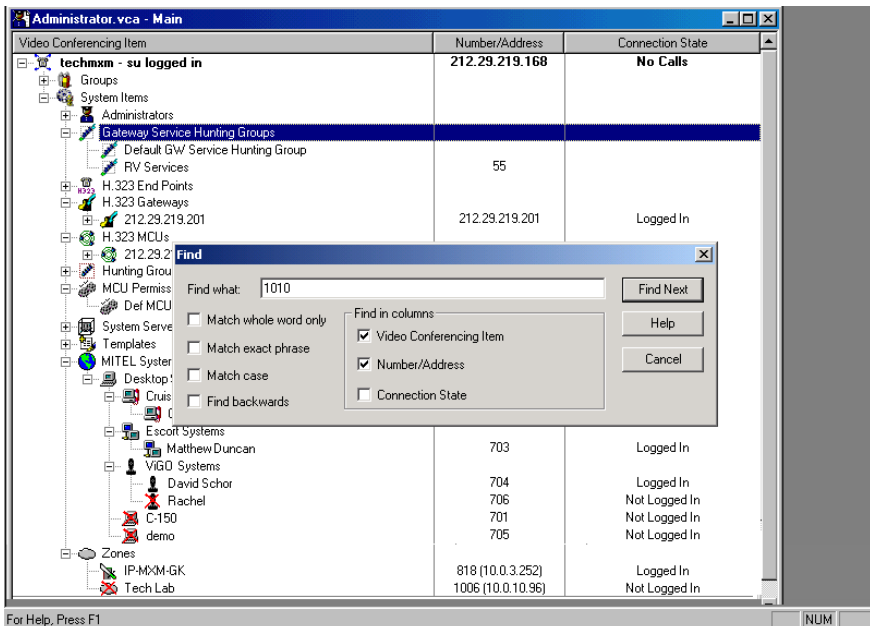
### Find backwards

Select this option to search up the tree from the selected location. To select down the tree, deselect this option.

### Find in columns

The Main View has three columns. Select the columns in which to search for the matching items.

- Click **Find Next**. The first matching item in the Main View is selected. To search for more matching items, click **Find Next** again.



*Finding an Item in the Main View*

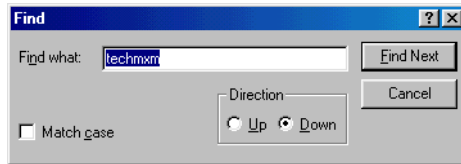


## Find in Other Views

In the 5700 VFA Administrator application's other Views, you can search for the names of entries. The search covers the first column of the table.

### ► To find entries in other Views

1. Open the View in which you want to work.
2. Click the Find button. The Find dialog box appears.



*Find Dialog Box*

3. In the **Find What** box, type the name of the entry.
4. If necessary, define additional search parameters:

**Match case** Select this option to match items whose capitalization is identical to the item in the **Find What** box. For example, if you enter **GW**, the search ignores any items that include “gw” or “Gw”.

To find all matching items, regardless of capitalization, deselect this option.

**Direction** Select the direction from the selected entry to search in the View, **Up** or **Down**.

5. Click **Find Next**. The first matching entry in the View is selected. To search for more matching entries, click **Find Next** again.

## Editing Multiple Nodes

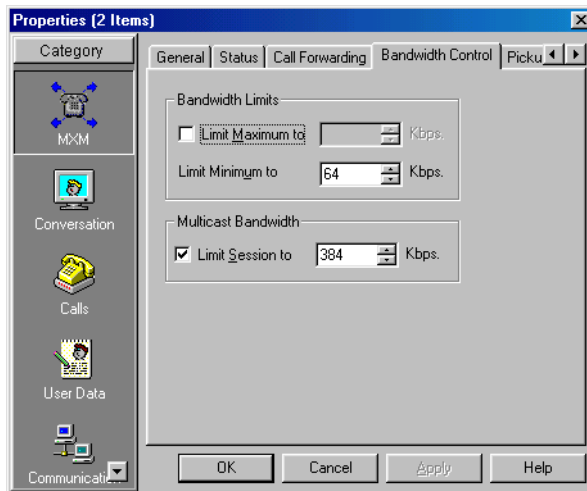
You can select more than one node at the same time and define certain properties with identical values. If the selection of nodes contains more than one node type, only the common properties among them may be changed. Other properties will be unavailable.

### ► To edit multiple nodes

1. Select the nodes that you want to change, using the standard Windows object selection techniques:
  - To select consecutive nodes, click the first node, press <Shift> and click the last node in the series that you want.
  - To select non-consecutive nodes, click the first node, hold down <Ctrl> and click all the other nodes that you want.
2. Right-click one of the selected nodes, and then click **Properties**.

The Properties dialog box appears. Only common properties among the selected nodes are available for change.

3. Change the appropriate properties. Remember that this change affects all the selected nodes.
4. Click **OK** to complete the change.



*Sample Properties Dialog Box - Multiple Nodes*

## Changing Directory Numbers

All end points, services, hunting groups, and other registered items are assigned an internal directory number (also called *E.164 number*). Any registered node can call another registered item simply by dialing the destination's directory number. This number is usually only a few digits, and can be adopted from the node's IP address, telephone extension number, or randomly.

The administrator may change the directory numbers of one or a range of several registered nodes.

### ► To change the directory number of a single node

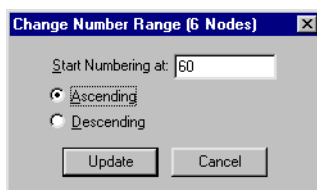
1. Double-click the node. The **General** tab of the node's Properties dialog box appears.
2. In the **Directory Number** box, type the new number. Press **OK**.

### ► To change a range of directory numbers

1. In the Administrator window, find the nodes whose numbers you want to change. If necessary, click a category's plus sign to expand the tree and display additional items.

Select the relevant nodes.

- 121 2. In the toolbar, click the **Change Numbers** button. The Change Number Range dialog box appears. The title bar shows the number of nodes in the selected range.



*Changing Node Numbering*

3. In the **Start Numbering At** box, type the new number for the start of the range.

4. Select **Ascending** for the numbering range to go up from the number that you typed (for example, 60, 61, 62, 63, ...). This new assignment affects the numbers for all other selected nodes.

Select **Descending** for the numbering range to go down from the number that you typed (for example, 63, 62, 61, 60, ...).

5. Click **Update** to implement the number change. On the Administrator tree, the new numbers for the selected nodes appear. From this point, a registered node must dial the new number to complete a call to the respective node.

### Deleting a Node

If a node is not relevant to the network anymore, you can delete it from the 5700 VFA.

#### ► To delete a node



- ☐ Click the node and then click the **Delete** button.

Click **Yes** to confirm.

### 4.3 Registering 5020 IP Telephones

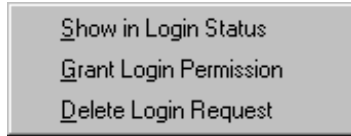
When a 5020 IP phone is connected to the network on which the 5700 VFA server is active, it will attempt to log in to the 5700 VFA Administrator. Activate the Administrator on the server and your screen should resemble the one shown below.

Video Conferencing Item	Number/Address	Connection State
Mitel - su logged in	192.168.15.149	No Calls
Login Requests		
192.168.15.43	192.168.15.43	
Mitel Phones		
5310 IP Conf	192.168.15.44	
System Items		
Zones		

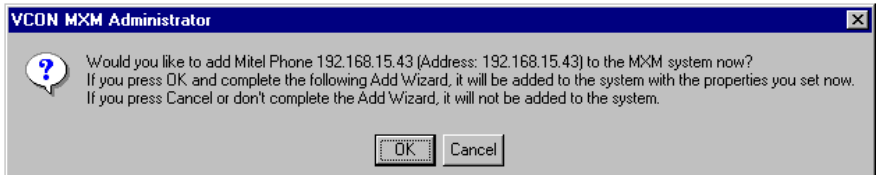
*Administrator screen showing login request*

**To add a phone:**

1. Right-click on the IP address of the requesting set.
2. Click **Grant Login Permission**.

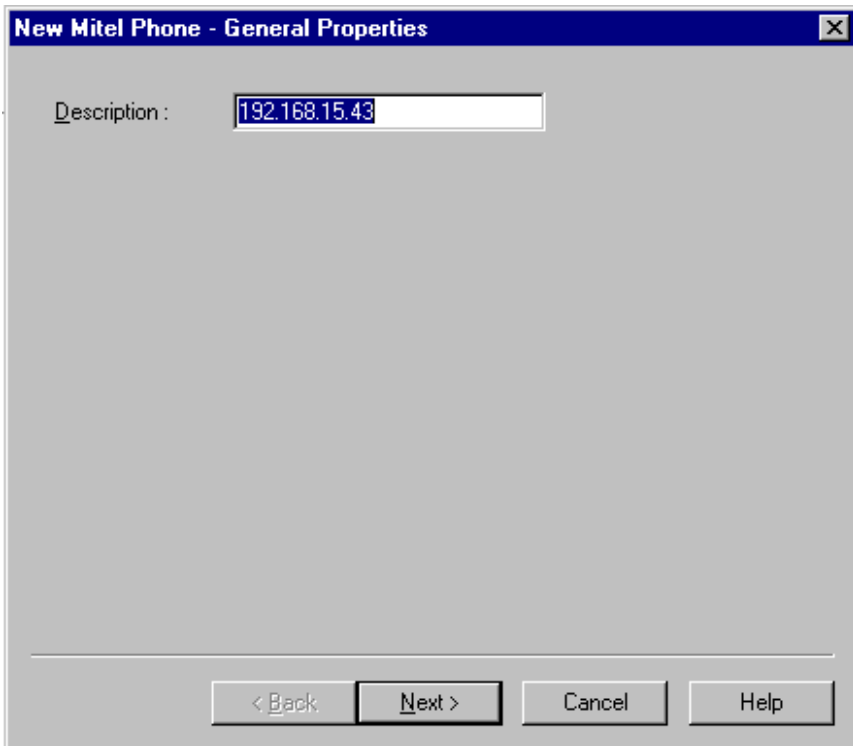
*Login Properties*

3. When the server confirms your selection, click **OK**.



4. In the General Properties dialogue box that appears, the initial description will appear as the phone's Directory Number but a User Name or IP address can be entered instead. This information will be based on data presented by the phone when it first attempts to register, i.e. IP address,

MAC address, etc. Click **Next** to confirm the description.



The screenshot shows a Windows-style dialog box titled "New Mitel Phone - General Properties". Inside the dialog, there is a label "Description:" followed by a text input field containing the IP address "192.168.15.43". At the bottom of the dialog, there are four buttons: "< Back", "Next >", "Cancel", and "Help".

5. In the Phone Device Properties dialogue box, enter the extension number of the phone and click **Next**.
6. Set Video Settings Properties as follows:
  - Define the type of video endpoint.  
*Either 5750 DVA or 5760 VCA.*

---

**NOTE** Ensure the "Enable video for this phone" box is checked.

---

- Check the "**Automatically start video...**" box (this is a requirement for registering 5020 IP phones).
- Set the **Call Bandwidth** as measured in kilobits per second.
- Set the **Audio Delay** if necessary.

**NOTE** The 5700 VFA will automatically configure audio synchronization. Any additional **Audio Delay** defined here will be in addition to the delay that the 5700 VFA will assign.

- Check **Show All Video Endpoints** if you wish to assign the endpoint from a list.

**WARNING** This manual definition of an endpoint may use the definition from a previously registered phone.

**New Mitel Phone - Video Settings Properties**

☒ Enable video for this phone

Video endpoint: Vigo - 1001

☐ Automatically start video when a phone call is established.

Call bandwidth: 512 kbps.

Audio delay: 0 milli-seconds.

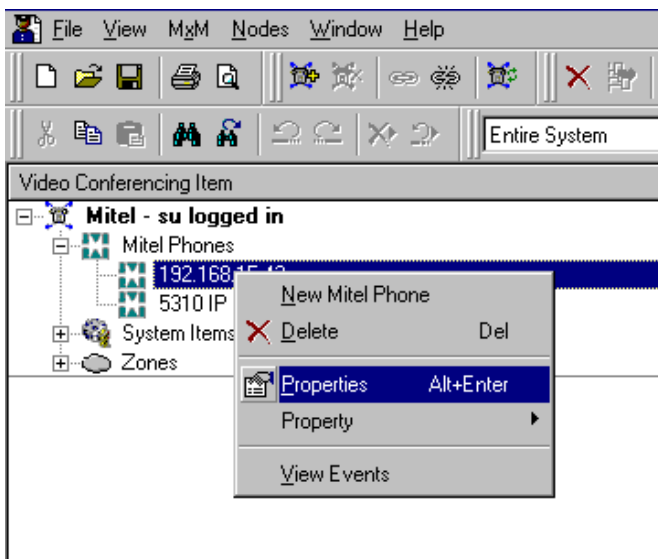
< Back   Finish   Cancel   Help

7. Click **Finish** when all settings have been defined.

The phone will now be listed (identified by its IP address) under the **Mitel Phones** list.

**To change the name of the phone in the list:**

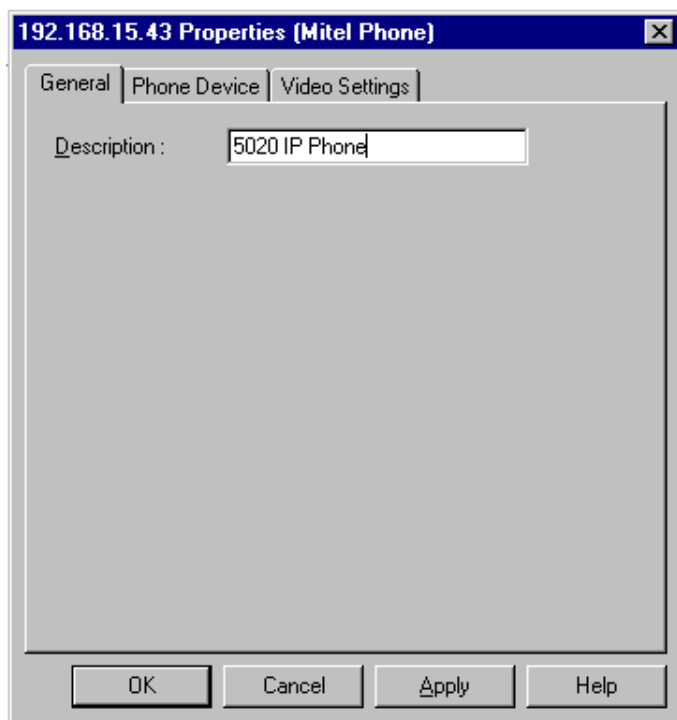
1. Right-click on the phone's IP address.



2. Select **Properties**.



3. Change the name of the phone in the **Description** field.



4. Click **OK**.

## 4.4 Status Monitoring

The Administrator application provides a number of views for monitoring the operations of the 5700 VFA and its registered nodes:

- Main View
- Login Status View
- Node Status View
- Event Log.

### Monitoring Nodes in the Main View

The Main View's Connection State column (right side of table) provides status information about the current activity of registered nodes. This column may display nodes' login status, or if nodes are currently in a videoconference and the amount of bandwidth being used.

Escort Systems		
Matthew Duncan	703	Logged In
ViGO Systems		
David Schor	704	In call : 2*360 Kbps
Rachel Nave	706	In call : 2*360 Kbps

*Indication of Nodes in a Videoconference*

### Viewing the Login Status

Use the Login Status View to monitor registration and login procedures for nodes. The table lists nodes that tried to register, but were not given login and registration permission. This table makes it easier to see the login information only about specific nodes instead of viewing the entire system tree.

#### ► To open the Login Status table



Click the **Login Status View** button.

Login Category	Network Address	Alias	Login Name	Login Status
Desktop	212.29.219.213	demo	demo	Login Permission Requested
► Falcon IP	10.0.10.126	FalconTECH	FalconTECH	Login Permission Requested
				Login Permission Granted
				Login Permission Requested

*Login Status View*

The Login Status table provides the following information:

<b>Login Category</b>	The type of node that tried to register.
<b>Network Address</b>	Address of this node.
<b>Alias</b>	Name of this node.
<b>Login Name</b>	The node's user name, as entered during the login procedure. If the node cannot provide a user name to the 5700 VFA, this space remains blank.
<b>Login Status</b>	Describes what happened when the node last tried to log in to the 5700 VFA.

---

**NOTE** In the Login Status table, you can grant login permission by clicking the node's Login Status column and then selecting **Login Permission Granted** (see the preceding figure). The node login process continues (see "Adding Nodes" on page 4-4).

---

## Viewing the Node Status

The Node Status View makes it easier to see the connection information only about specific nodes instead of viewing the entire system tree. You can monitor the following:

- End points
- Gatekeeper
- Administrator nodes
- Gateways
- MCUs
- Neighboring Zones
- LDAP Proxy

### ► To monitor nodes in the Node Status View



1. Click the **Node Status View** button. The Node Status View appears.

2. In the main Administrator window, select any number of nodes.

- Drag the nodes into the Node Status View window. The information about the selected nodes appears in the table.

	Node Description	Node Number	Status	Connection State	Bandwidth (kbps)	Audio Codec	Video Codec
	David Schor	1001		Talking to 1004	2*360	G.722 64k	H.261 CIF
	Rachel Nave	1004		Talking to 1001	2*360	G.722 64k	H.261 CIF
	Gary Rose	1011		Not Logged In	---	---	---
	FalconTECH	1009		Logged In	---	---	---

*Node Status Table*

MXM Name	MXM Address	Node Description	Node Number	Status	Connection State	Bandwidth (kbps)	Audio Codec
Techpub	10.0.3.252	David Schor	1001		Talking to 1004	2*360	G.722 64k
Techpub	10.0.3.252	Rachel Nave	1004		Talking to 1001	2*360	G.722 64k
Techpub	10.0.3.252	Gary Rose	1011		Not Logged In	---	---
Techpub	10.0.3.252	FalconTECH	1009		Logged In	---	---
VCON North	10.0.10.130	Jane Mann	1007		Logged In	---	---
VCON North	10.0.10.130	Mike Wilson	1505		Logged In	---	---
VCON North	10.0.10.130	Bob Chang	3269		Logged In	---	---

*Node Status Table*

- To go back to the Main Administrator View, click the **Administrator** tab at the bottom of the window.

### **Multiple Node Status Tables**

You can make more than one Node Status Table to view different groups of nodes.

#### **➤ To create a new Node Status table**



- At the bottom of the Node Status View, click the **Add New Tab** button.
- Double-click the tab name.
- Press the <Delete> key as many times as required until the default name is deleted.
- Type a new tab name and press <Enter>.

### ► To delete a Node Status table

1. Click the tab of the table.



2. At the bottom of the Node Status View, click the **Remove Tab** button.

The tab is deleted.

### **Node Status Table Information**

The Node Status View provides the following information:

<b>Node Name</b>	Name for the node - it may be the node's alias or any other arbitrary name.
<b>Node Number</b>	5700 VFA directory number of the node.
<b>Status</b>	Connection status as indicated by icon.
<b>Connection State</b>	Describes the current connection or activity status of the node. For example, this column may indicate that a node is currently in a videoconference.
<b>Bandwidth</b>	Amount of bandwidth that is consumed by the node during the current call. If the node (such as an MCU) is engaged in more than one session, both total and per-session bandwidths appear.
<b>Audio Codec</b>	If the node is in a call, this column indicates the audio transmission standard being used.
<b>Video Codec</b>	If the node is in a call, this column indicates the video transmission standard being used.

### Event Log Monitoring

The Event Log displays information about system events and operating conditions. You can view all network events during a time period, events involving a specific node, specific types of events, events of a certain severity level, and more. Refer to it if you need to troubleshoot and to isolate a problem.

#### ► To view the Event Log for the 5700 VFA



1. Click the **Event Log** button.

Administrator.vca.2 - Techpub (10.0.3.252) - Event Log

Filters: Default Filter

Handled	Name	Severity	Date/Time	Application Type	Network Address	Error Code	Details
<input type="checkbox"/>	FalconTECH	Information	08/13/01 15:35:04	Falcon IP	10.0.10.126	1100	Register Accepted (H323 Channel).
<input type="checkbox"/>	FalconTECH	Information	08/13/01 15:35:02	Falcon IP	10.0.10.126	1100	Register Accepted (Data Channel).
<input type="checkbox"/>	MxM	Information	08/13/01 15:35:02	MxM	10.0.3.252	1300	Node at IP 10.0.10.126 logged in successfully.
<input type="checkbox"/>	su	Information	08/13/01 14:59:38	Administrator	10.0.11.116	1800	Remote call initiation
<input type="checkbox"/>	VIGO - Lab	Information	08/13/01 14:58:27	Desktop	10.0.1.230	1100	Register Accepted (H323 Channel).
<input type="checkbox"/>	MxM	Information	08/13/01 14:58:27	MxM	10.0.3.252	1300	Node at IP 10.0.1.230 logged in successfully.
<input type="checkbox"/>	---	Information	08/13/01 14:34:14	H.323 Gatekeeper	10.0.3.252	1	EP in 10.0.10.126 was disconnected because of KEEP...
<input type="checkbox"/>	FalconTECH	Information	08/13/01 13:01:14	Falcon IP	10.0.10.126	1100	Register Accepted (Data Channel).
<input type="checkbox"/>	MxM	Information	08/13/01 13:01:14	MxM	10.0.3.252	1300	Node at IP 10.0.10.126 logged in successfully.
<input type="checkbox"/>	FalconTECH	Information	08/13/01 13:01:07	Falcon IP	10.0.10.126	1100	Register Accepted (H323 Channel).
<input type="checkbox"/>	MxM	Information	08/13/01 13:01:02	MxM	10.0.3.252	1107	Register Rejected (Data Channel) - Visit For Administrat

*Event Log View*



2. To see events that occurred before those in the table, click the **Prior Events** button.



To see events that occurred after those in the table, click the **Next Events** button.



To update the table and display new events, click the **Refresh** button.

#### ► To view the Event Log for a specific node

1. Right-click the node and then click **View Events**.
2. The Event Log opens for the specific node only.

## **Changing Record-Keeping Periods**

From the Event Log View, you can change the periods of time that the 5700 VFA keeps records of specific types of events.

### **➤ To change the record-keeping period**

1. In the Event Log View's **Event** menu, click **System Logging Settings**. The 5700 VFA **Event Log** properties tab appears.
2. Change the appropriate record-keeping periods (see "Event Log" on page 5-24).

## **Event Log Information**

The Event Log provides the following information:

<b>Handled</b>	Indication if the event no longer needs administrator attention.
<b>Name</b>	Name of the node associated with the event.
<b>Severity</b>	Classification of the type of event that occurred. This can determine the level of attention that's required from the administrator.
<b>Date/Time</b>	Date and time that the event occurred.
<b>Application Type</b>	Type of node or group in which the event occurred.
<b>Network Address</b>	IP address of the node or group shown in the Application Type column.
<b>Error Code</b>	Indication of the type of error or event.
<b>Details</b>	Description of the event.

## Filtering the Event Log

You can control the level of information that appears in the Event Log by defining filters according to the details that are important to you. You can set filtering according to all or any combination of the following criteria:

- Severity level
- Application (node type)
- Handled/unhandled events
- Number of displayed records
- Date and time
- IP Address range
- Error code
- Event description.

*Filtering the Event Log*



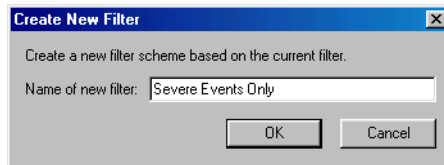
➤ **To set Event Log view filters**



1. In the Event Log, click the **Filter** button. The Filter Records dialog box appears.
2. Define the particular filters according to the specific criteria that you require for reducing the possible accounts that you want to check (for definitions of the categories, see “Filtering Criteria” on page 4-26).
3. Click **OK**.

➤ **To save a filter for future use**

1. In the Event Log, click **Create New**.
2. In the Create New Filter dialog box, type a name for the new filter scheme.
3. Click **OK**.



*Saving a Filter Scheme*

The scheme name now appears in the **Scheme** list.

---

**NOTE** To delete a scheme, select it from the **Scheme** list and click **Delete**.

---

### Filtering Criteria

This section provides explanations for the various Event Log filtering categories (for definitions of the categories, see “Event Log Information” on page 4-23):

**Severity** Set the log to display only certain types of events which affect the network’s functioning.

**Application Type** Set the log to display only events that occur in specific types of nodes.

**Show Handled Events** Show events that are defined as handled (or fixed) or unhandled or both. This category helps you indicate if events no longer need administrator attention.

**Query Size** Set the log to display a maximum number of records on the screen. If the log contains more than this number of records, you can click **Prior Events** and/or **Next Events** to display them.



**Time** Set the log to display only records within a specific time range. Select one of the following options:

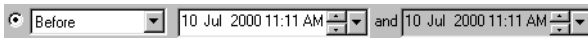
- ☐ Any time
- ☐ Up to 60 days before the current day
- ☐ A time range according to the following criteria:

**After, Before, Between, On or after, On or before** a specific date and time.

---

**NOTE** If you select **Between**, you have to set an earliest and latest time limit.

---



*Setting a Time Range Filter*

<b>Time (cont.)</b>	<p>To specify the time limit, click the large down arrow to open a calendar in which you can browse and choose an exact date and year.</p> <p>In addition, you can select one-by-one the date, month, year, hour, minute, and/or AM/PM. Then, click the small up or down arrows until the value that you want appears.</p>
<b>Application Network Address</b>	<p>Filters the event log to display events only from nodes whose IP addresses meet the criterion defined here.</p> <p>In the adjacent box, type the address range that fits the phrase selected from the list.</p> <p>For example, clicking <b>Begins with</b> and then typing <b>100.100.100.</b> will display records for accounts whose IP address is in the range greater than 100.100.100.0.</p>
<b>Error Code Description</b>	<p>Indicates the type of error or event that occurred.</p> <p>Set the log to display only records whose Details contains, does not contain, ends or begins with (and other criteria) a specific text string.</p>

### 4.5 *Setting Up Templates*

When you manually grant permission to a new node to register, or if you add a new service, you have to confirm or change the item's properties before the item is added to the 5700 VFA tree and database. The original default properties were set at Mitel Networks production facility.

An administrator with Super User privileges may change various default properties by setting up a template. A template includes the characteristic properties for a type of node or service. Any newly created item in the system will initially have the default properties defined in the template.

Any changes to a template only affect new nodes that you create afterwards - they do not affect existing nodes.

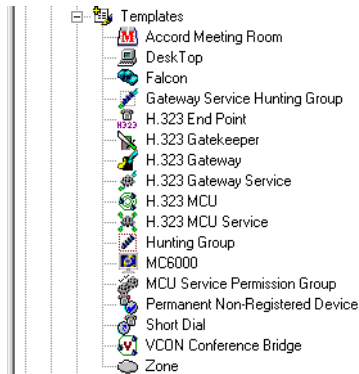
#### **Editing a Template**

Templates are provided for the following items. For explanations about a template's properties, see the section that describes the properties about the specific node or service.

- Mitel Networks Desktop systems  
See pages 6-3 to 6-14 and App. A.
- VCON MediaConnect 6000  
See pages 6-3 to 6-14.
- H.323 MCU  
See pages 8-3 to 8-6.
- MCU Service Permission Group  
See pages 8-14 to 8-16.
- H.323 Gateway Service  
See pages 7-8 to 7-9.
- Hunting Group  
See pages 4-30 to 4-33.
- Non-Mitel Networks H.323 End Point  
See pages 6-3 to 6-14.
- VCON Conference Bridge  
See pages 12-2 to 12-5.
- 5760 VC  
See pages 6-3 to 6-14 and App. B.
- Neighboring zones  
See pages 9-4 to 9-11.
- H.323 MCU Service  
See pages 8-7 to 8-13.
- H.323 Gateway  
See pages 7-4 to 7-6.
- Gateway Hunting Group  
See page 7-10.
- H.323 Gatekeeper
- Permanent Non-registered Device  
See pages 6-3 to 6-14.
- Accord Meeting Room  
See pages D-7 to D-10.

### ► To edit a template

1. In the Main view, expand the **Templates** group to display all available templates.



#### *List of Templates*

2. Right-click a template, and then click **Properties**.  
The Properties dialog box appears.
3. Change the appropriate properties (see the list on the previous page for the locations of the relevant properties explanations). If applicable, click on other tabs in the dialog box to change more properties.
4. Click **OK** to complete the change. If you want to discard the change, click **Cancel**.

### 4.6 Adding Hunting Groups

A hunting group includes a series of nodes that may be grouped together within an organization for a variety of reasons, but may be reached through one common number. When the common number is dialed, the 5700 VFA searches for a free node.

For example, if the first node is busy, the system tries to contact the next node, and so on. If all nodes are engaged, the 5700 VFA rejects the call.

The most important characteristic of a hunting group is the order in which calls are routed to members of the group. When you create a hunting group, you can determine the “hunting” order and method (see “Hunting Group Properties” on page 4-32).

Gateway Service hunting groups operate under a similar principle. You can set the order in which gateway services are requested when the hunting group’s access number is dialed (see “Gateway Service Hunting Groups” on page 7-10).

#### ➤ To create a hunting group



1. Click the **New Hunting Group** button. The New Hunting Group Properties wizard opens.
2. Change properties according to your hunting group requirements. To move to the next properties page, click **Next**. For explanations about the various properties, see pages 4-31 to 4-33.
3. Click **Finish**. In the Main View, the new hunting group appears under the Hunting Group object.

## General Properties

The **General** page appears when you open the Hunting Group wizard. It contains identity information about the hunting group.

The screenshot shows a Windows-style dialog box titled "New Hunting Group - General Properties". Inside the dialog, there are two labeled text boxes. The first is labeled "Directory Number :" and contains the text "1530". The second is labeled "Description :" and contains the text "Sales". At the bottom of the dialog, there is a row of four buttons: "< Back", "Next >", "Cancel", and "Help".

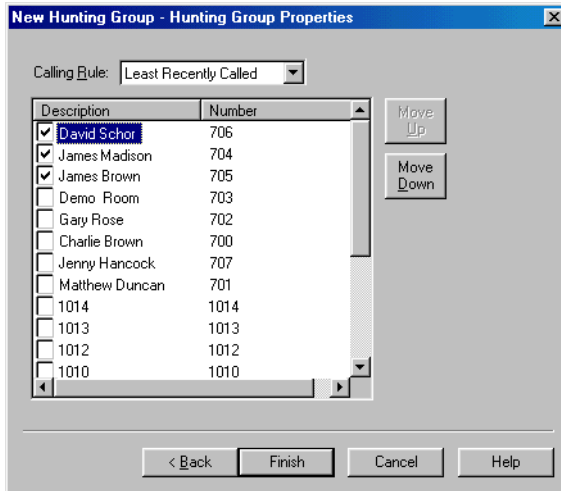
*Hunting Group - General Properties*

Set the following **General** Properties:

<b>Directory Number</b>	The number to be dialed in order to call this hunting group.
<b>Description</b>	Description or name for the group. This name appears in the Main View under the Hunting Groups object.

## Hunting Group Properties

In the Hunting Group Properties page, you can set the default hunting method, place specific nodes in the hunting group, and set the preferred order of hunting.



### *Hunting Group Properties*

Set hunting group properties as follows:

**Calling Rule**      Default “hunting” method

**Least Recently Called** - Calls are routed first to the node which has not received a call in the longest time.

**Circular** - Calls are routed first to the node in the hunting group list that follows the last node that was called.

**Fixed Order** - The search starts at the first node in the hunting group list, then the second node, third node, and so on, until a free node is found.

**Simultaneous** - Simultaneous calls go to every member of the hunting group. Upon the first acceptance of a call, all the other calls disconnect.

**Description/Number**      Select the nodes that will belong to this hunting group.



## Setting the Hunting Order

In the New Hunting Group Properties dialog box, selected nodes are automatically placed in the top part of the list. You can then move them to different places in the hunting order. Their locations in the list, together with the Calling Rules setting, determines the hunting order.

### ► To set the hunting order of the selected nodes

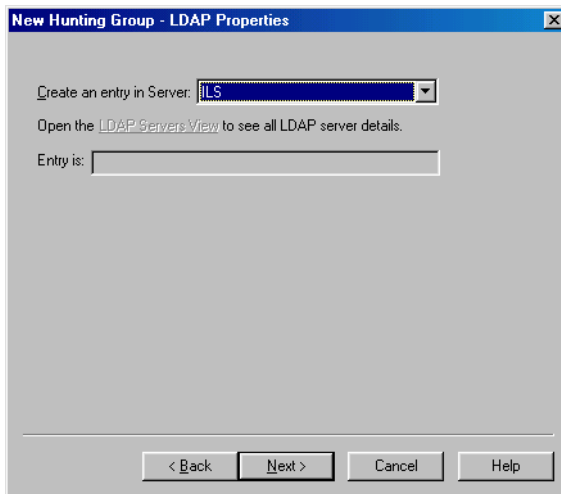
1. Click the name (*not* the checkbox) of a selected node. To move the node up and down the list to its designated place, click **Move Up** or **Move Down** as many times as necessary.

Repeat this step for as many nodes as necessary.

2. Click **OK** to implement the settings and close the dialog box.

## Hunting Group LDAP Properties

In the LDAP page, you can define the hunting group's registration, if applicable, in an LDAP (Lightweight Directory Access Protocol) server.



*Hunting Group - LDAP Properties*

<b>Create an Entry in Server</b>	The central LDAP server that contains the subdirectory in which the hunting group should be listed. The Super User must create this subdirectory as a level within 5700 VFA hierarchy.
<b>Entry is:</b>	Name or number of the hunting group's entry in the directory.

## **Additional ID Properties**

In addition to its directory (E.164) number, a hunting group may have other addresses that may be used to dial it, such as additional E.164 addresses and/or H.323 ID. In the **Additional ID** page, you may enter these, if applicable. For example, the Description entered in the **General** page will appear as an Additional ID as an H.323 ID.

For more information about adding Additional IDs, see “Additional IDs Properties” on page 6-14.

## 4.7 Adding an Administrative Group

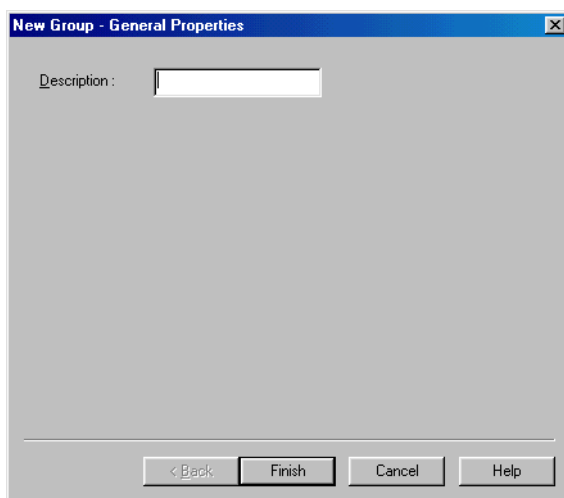
You can create Administrative Groups of nodes that reflect the needs of the enterprise's organization. Administrative groups in the Main View can help maintain a visual structure for nodes and the teams and departments to which they belong. This also makes it easier to set common end point properties within a team or department, such as limiting the available bandwidth for the group.

For example, you can create groups for Management, Sales, Finance, R&D, or others and place end points accordingly.

### ► To create an administrative group



1. Click the **New Administrative Group** button. The New Group wizard appears.



#### *New Administrative Group Properties*

2. In the **Description** box, type a name for the group and click **Finish**. This name will appear on the system tree.
3. To create more groups, repeat steps 1 and 2.
4. To see the created groups in the Main View, expand the Groups object.

**NOTE** You can also add administrative subgroups as branches under other created groups. To do this, select an existing administrative group before clicking the Add Administrative Group button.

### ► To place nodes into an administrative group

1. In the Main View, select one or more nodes.
2. Drag the nodes to the administrative group.

Video Conferencing Item	Number/Address	Connection State
<div> <div> <b>techmxm - su logged in</b> </div> <div> <div> <b>Groups</b> </div> <div> <div>  Finance </div> <div>  Management </div> <div>  R&amp;D </div> <div>  Sales </div> <div> <div>  Charlie Brown </div> <div>  Sharon Green </div> <div>  Matthew Duncan </div> <div>  David Schor </div> </div> </div> </div> </div>	<div> <b>10.0.10.96</b> </div> <div> 701 </div> <div> 704 </div> <div> 702 </div> <div> 700 </div>	<div> <b>No Calls</b> </div> <div> Logged In </div> <div> Logged In </div> <div> Logged In </div> <div> Logged In </div>

*Sample Administrative Group*

## Changing Group Member Properties

Administrative groups make it easier to control end point properties that need to be common within a team or department, such as limiting the available bandwidth for the members of a group.

### ► To change common properties for all group members

1. Right-click the group name, point to **Member Property**, and click the specific property type.

A Properties dialog box for all group members opens to the property type that you clicked. Common properties among the group members are available for change.

2. Change the appropriate properties. Remember that this change affects all the group members.
3. Click **OK** to complete the change. If you want to discard the change, click **Cancel**.

## 4.8 Adding a Short Dial Number

A Short Dial Number is a number, that when dialed, is routed to another specific registered user. It ideally is used as an easy-to-remember number intended to reach a department or a location instead of a specific person. It can also be used to include ISDN entries in the network and online directories (LDAP).

For example, you can set up a Short Dial Number, “444”, that reaches a sales representative whose personal directory number is “4792”. All calls dialed to “444” would automatically be forwarded to “4792”.

### ► To add a Short Dial number



1. In the Main View’s toolbar, click the New Short Dial button. The New Short Dial Wizard appears.
2. Change properties according to your short dial requirements. To move to the next properties page, click **Next**. For explanations about the various properties, see the following subsections.
3. Click **Finish**. In the Main View, the new Short Dial entry appears under the Short Dial Numbers object.

### General Properties

The **General** page appears when you open the New Short Dial wizard. It contains identity information about the entry.

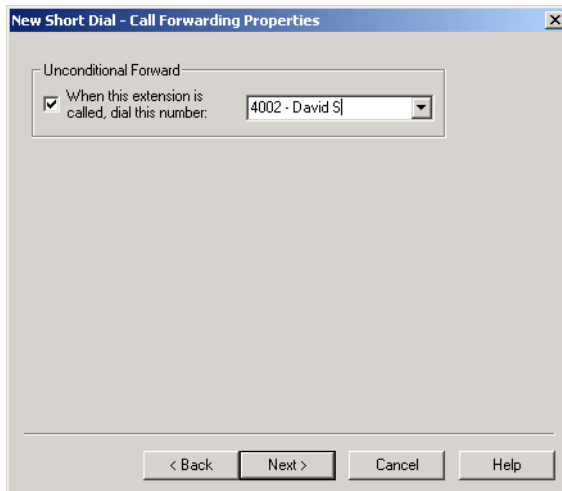
*Short Dial - General Properties*

Set the following **General** Properties:

<b>Directory Number</b>	The number to be dialed in order to call the user that this entry represents.
<b>Description</b>	Description or name for the entry. This name appears in the Main View under the Short Dial Numbers object.

### Call Forwarding Properties

In the **Call Forwarding** tab, select the user who will receive any videoconference calls dialed to the Short Dial number.



*Short Dial - Call Forwarding Properties*

### LDAP Properties

The **LDAP** tab provides information about the Short Dial number's registration, if applicable, in an LDAP (Lightweight Directory Access Protocol) server. For information about nodes' LDAP Properties, see "LDAP Properties" on page 6-13.

### Additional ID Properties

In addition to its directory (E.164) number, a Short Dial number may have other addresses that may be used to dial it, such as additional E.164 addresses and/or H.323 Alias. In the **Additional ID** page, you may enter these, if applicable. For more information about adding Additional IDs, see "Additional IDs Properties" on page 6-14.

## 5 SETTING 5700 VFA SYSTEM PROPERTIES

5700 VFA servers have system properties that define their operation. In the 5700 VFA Properties dialog box, the properties are divided into various categories:

<b>5700 VFA</b>	Connection, System Information, Dial Plan, LDAP Settings See page 5-2.
<b>Call Control</b>	System Bandwidth Control, Call Settings, Ad-hoc Resources See page 5-10.
<b>Security</b>	Security Mode, License, Non-registered Devices See page 5-14.
<b>H.323 Gatekeeper</b>	Zone Settings, Advanced Settings See page 5-19.
<b>Reporting</b>	Billing, Event Log See page 5-23.

### ► To define 5700 VFA Server system properties

1. In the Administrator window, right-click the 5700 VFA node at the top, point to **Property** (opening another menu), and click the specific property type.

-or-



Click the 5700 VFA node and then click the **Display Properties** button.

2. In the Properties dialog box, change properties according to the system's specifications. To set different types of system properties, click the appropriate category icon on the left side of the dialog box, and then click the tab at the top of the dialog box. For explanations about the various properties, see the above list for their locations.
3. To implement the change and proceed to another set of 5700 VFA properties, click **Apply** and then the appropriate category icon and tab.
4. To implement all the changes and close the dialog box, click **OK**.

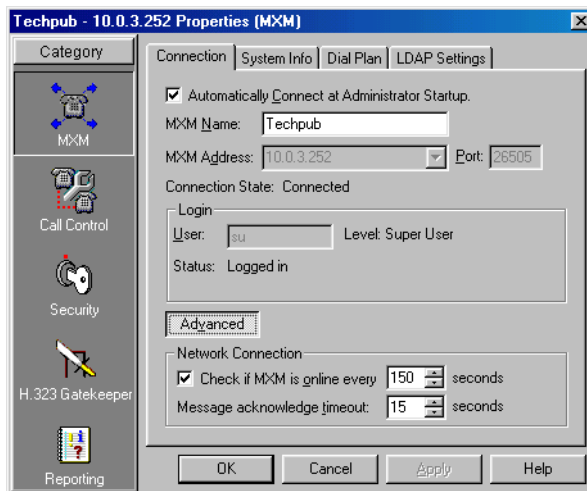
### 5.1 5700 VFA Properties

In the 5700 VFA system Properties dialog box, click the 5700 VFA icon to access the following property pages:

- ☐ Connection
- ☐ System Information
- ☐ Dial Plan
- ☐ LDAP Settings

#### Connection Properties

The **Connection** tab contains information about the 5700 VFA Administrator application's connection to the 5700 VFA.



*5700 VFA (MXM) Connection Properties*



Set the connection properties as follows:

<b>Automatically Connect at Administrator Startup</b>	Select this option if you want to connect to this 5700 VFA automatically whenever you start the Administrator application.
<b>5700 VFA Name</b>	Type any identifying name for the 5700 VFA. This name does not affect the operation of the system.
<b>5700 VFA Address</b>	IP address or DNS name of the 5700 VFA.
<b>Port</b>	TCP/IP port number. Automatically provided by the system.
<b>Connection State</b>	Informs you if the 5700 VFA Administrator application is connected, trying to connect, or not trying to connect to the 5700 VFA.
<i>Login</i>	Provides information about the current login state:
<b>User</b>	The administrator name.
<b>Level</b>	Level of administration privileges permitted to the User.
<b>Status</b>	Current state of the login attempt.

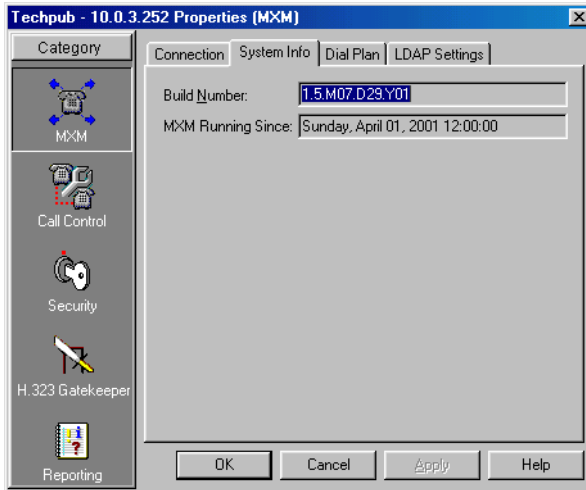
Clicking **Advanced** displays the following properties:

### *Network Connection*

<b>Check if 5700 VFA is online</b>	Select if you want the Administrator application to periodically check that the 5700 VFA is still connected, when there is no traffic over the connection.  Next to that property, select the number of seconds between checks if there is no activity over the connection.
<b>Message Acknowledge Timeout</b>	Select the number of seconds that the Administrator application waits to receive an update response from the 5700 VFA. After this interval, a message states that the 5700 VFA did not respond.

### System Info

The **System Info** tab provides information about the installation of the current 5700 VFA version. Provide this information if you contact Mitel Networks Technical Support.



#### *5700 VFA (MXM) Information*

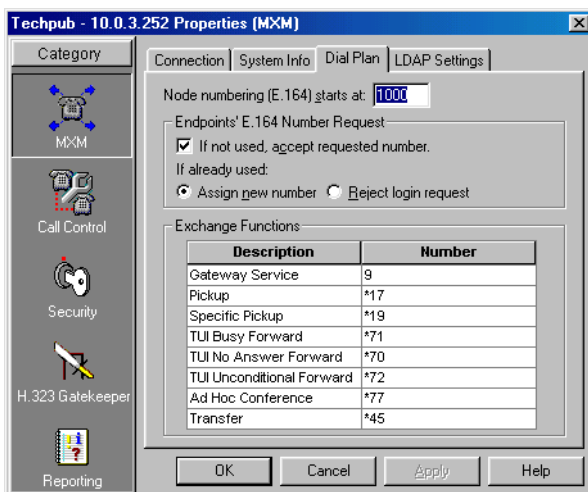
<b>Build Number</b>	The number and date of the 5700 VFA software version.
<b>5700 VFA Running Since</b>	Date and time when the 5700 VFA started operating.

## Dial Plan

In the **Dial Plan** tab, define how the 5700 VFA assigns directory numbers (E.164-type) to registered end points and other nodes. Entering directory numbers are a convenient way for registered users to dial other nodes.

This tab also includes the names of the supplemental exchange functions and the default Telephony User Interface (TUI) numbers that the end point may dial to activate each of them. You may change the number for any of the functions.

For more information about how end points use exchange functions, see the *Mitel Networks 5700 Voice First Application (5700 VFA) End Point's Guide*.



*Dial Plan Properties*

Set directory numbering as following:

**Node numbering (E.164) starts at** This number is the starting point for assigning directory numbers to registering nodes. You can provide for two, three, four, etc. digits for numbering nodes.

For example, if this number is “700”, new nodes will receive the first 3-digit number available between 700 and 999. To increase the numbering capacity (according to the license key code’s specification), you can specify a larger 3-digit range or add a fourth digit.

### *End Points’ E.164 Numbering Request*

**If not used, accept requested number** Select to grant any E.164 number requests, if available, by registering end points.  
If deselected, the 5700 VFA assigns directory numbers only according to the Node numbering definition above, and rejects all user E.164 numbering requests.

### *If already used*

**Assign new number** Select to accept the registration request, but to assign a directory number according to the Node numbering definition above.

**Reject login request** Select to reject the registration request if the specified E.164 number is already assigned to another node.

The Exchange Functions table lists the available functions and their corresponding TUI numbers.

### ➤ **To change the TUI number of an exchange function**

- ☐ Click in the **Number** column of the entry that you want to change.

Delete the previous number and type a new number.

To replace other numbers, repeat this step as many times as necessary.

---

**NOTE** MeetingPoint 4.5 and higher provides access to call pickup, forwarding and transfer functions from the Conference Panel.

---

The available functions are:

<b>Gateway Service</b>	<p>For starting an ISDN videoconference over a gateway. The end point must enter this number, followed by the ISDN channel numbers, and then click <b>Dial</b>.</p> <p>The default value is <b>9</b>.</p>
<b>Pickup</b>	<p>For picking up a call that's intended for any destination for which the end point has pickup permission. The end point enters this number and then clicks <b>Dial</b>.</p> <p>The default value is <b>*17</b>.</p>
<b>Specific Pickup</b>	<p>For picking up a call that's intended for a specific destination (for which the end point has pickup permission). The end point enters this number, followed by the directory number of the destination end point, and then clicks <b>Dial</b>.</p> <p>The default value is <b>*19</b>.</p>
<b>Busy Forward</b>	<p>If the end point is busy in a videoconference, the 5700 VFA forwards all incoming calls for it to an alternate destination. To activate, the end point enters this number, followed by the directory number of the alternate destination, and then clicks <b>Dial</b>.</p> <p>The default value is <b>*71</b>.</p>
<b>No Answer Forward</b>	<p>If the end point does not answer, the 5700 VFA forwards a call to an alternate destination. To activate, the end point enters this number, followed by the directory number of the alternate destination, and then clicks <b>Dial</b>.</p> <p>The default value is <b>*70</b>.</p>
<b>Unconditional Forward</b>	<p>The 5700 VFA forwards ALL calls intended for the end point to an alternate destination. To activate, the end point enters this number, followed by the directory number of the alternate destination, and then clicks <b>Dial</b>.</p> <p>The default value is <b>*72</b>.</p>

### **Ad-hoc Conference**

For inviting additional users to an open point-to-point videoconference. The end point enters this number, followed by the directory number of the target end point, and then clicks **Dial**.

The default value is **\*77**.

---

**NOTE** Expansion to ad-hoc videoconference is available only for licensed users of the Conference Control Option. If you want to add this option to your 5700 VFA, please contact your local Mitel Networks distributor.

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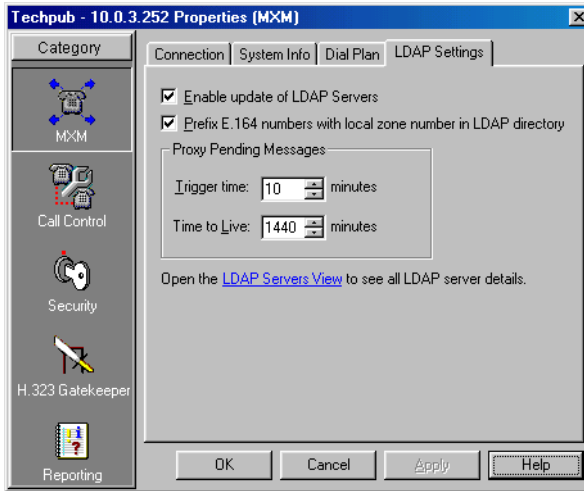
### **Transfer**

For transferring an open videoconference to another end point (and disconnecting from the transferring end point). The transferring end point enters this number, followed by the directory number of the target end point, and then clicks **Dial**.

The default value is **\*45**.

## LDAP Settings

In the **LDAP Settings** tab, enable the 5700 VFA to periodically update its registered users in connected LDAP (Lightweight Directory Access Protocol) online directories. For more information about LDAP, see Chapter 10, “Registering with LDAP Directories.”



*LDAP Settings Properties*

Set LDAP Settings as follows:

### **Enable Update of LDAP Servers**

Select to enable the 5700 VFA to update its registered users information in the LDAP directories.

### **Prefix E.164 numbers with local zone number**

If neighboring zones are included in your online directories, select this option to append zone numbers to the directory numbers of all listed nodes.

### *Proxy Pending Messages*

If no communication was received from the LDAP directory after a certain interval, the 5700 VFA asks the LDAP Proxy server if its directory list (for the 5700 VFA registered users) requires updating.

### **Trigger Time**

Enter the interval between update request messages sent by the 5700 VFA to the LDAP Proxy server.

<b>Time to Live</b>	Enter the interval for discarding an update request message that is not received by the LDAP Proxy server.
<b>LDAP Servers View</b>	For information about the available LDAP servers, click this link. The LDAP Servers table appears, displaying location and access information about the available servers.

---

**NOTE** If you update the 5700 VFA LDAP settings, you must also update the same configuration settings in the LDAP server (see Chapter 10, “Registering with LDAP Directories”).

---

## 5.2 *Call Control Properties*

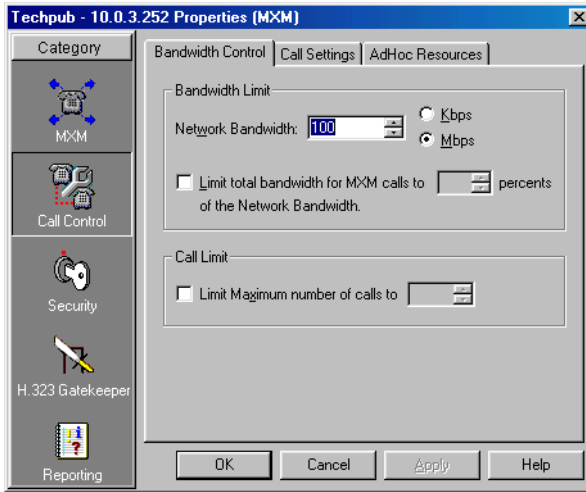
In the 5700 VFA system Properties dialog box, click the Call Control icon to access the following property pages:

- ☐ Bandwidth Control
- ☐ Call Settings
- ☐ Ad-hoc Resources

### **Bandwidth Control**

In the **Bandwidth Control** tab, define how the 5700 VFA manages the available bandwidth within its zone.





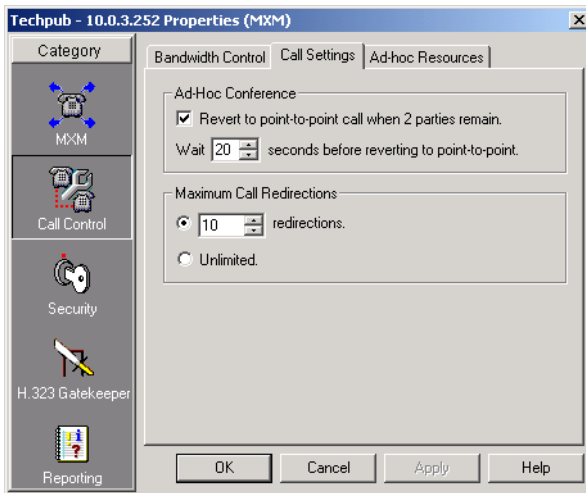
*Local 5700 VFA (MXM) Bandwidth Control Properties*

Set bandwidth control properties as follows

<b>Network Bandwidth</b>	Total amount of bandwidth available to the LAN.
<b>Limit total bandwidth of 5700 VFA calls</b>	Select to define the percentage of total network bandwidth to be allocated for calls managed by the 5700 VFA.
<b>Limit maximum number of calls to</b>	Select to define the maximum number of videoconferences managed by this 5700 VFA, that can carry on at the same time. The amount of open videoconferences cannot exceed the bandwidth limit defined above.

### Call Settings

The **Call Settings** tab includes properties defining call connection throughout the videoconferencing network.



*Call Settings Properties*

Set Call Settings properties as follows:

#### *Ad-hoc Conference*

**Revert to point-to-point call when 2 parties remain** Select to return to a point-to-point call when only two parties remain in an ad-hoc videoconference

**Wait \_\_ seconds before reverting to point-to-point** After a third party disconnects, the videoconference will revert to a point-to-point session after this interval.

---

**NOTE** Expansion to ad-hoc videoconference is available only for licensed users of the Conference Control Option. If you want to add this option to your 5700 VFA, please contact your local Mitel Networks distributor.

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*Maximum Call Redirections*

\_\_\_ **redirections** Select the maximum number of times that a call can be forwarded sequentially to other nodes before the call is cancelled.

**Unlimited** Select to allow calls to be forwarded to as many destinations as necessary until they are answered.

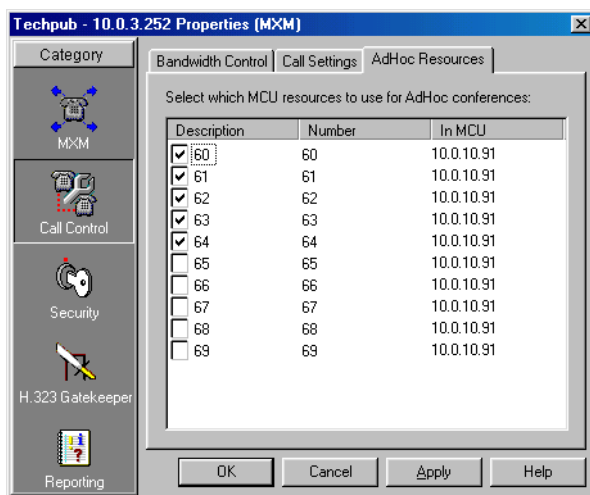
**Ad-hoc Resources**

The Ad-hoc Resources table contains a list of MCU services registered with the 5700 VFA, together with the MCU with which they are associated. Select the services that the 5700 VFA may use to initiate an ad-hoc videoconference.

---

**NOTE** Expansion to ad-hoc videoconference is available only for licensed users of the Conference Control Option. If you want to add this option to your 5700 VFA, please contact your local Mitel Networks distributor.

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*Available Ad-hoc Resources*

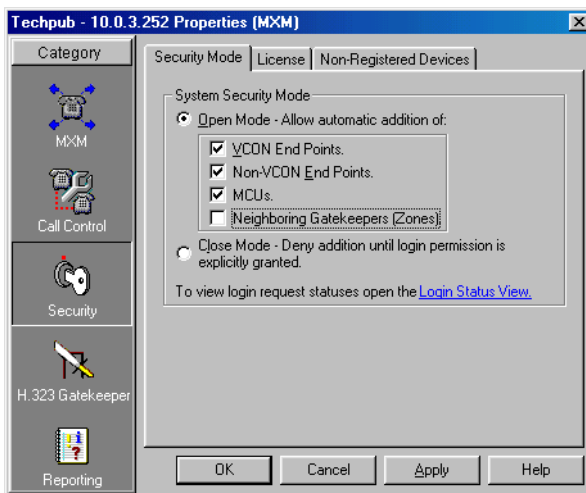
### 5.3 Security Properties

In the 5700 VFA system Properties dialog box, click the Security icon to access the following property pages:

- ☐ Security Mode
- ☐ License
- ☐ Non-registered Devices

#### Security Mode

In the **Security Mode** tab, set the properties for restricting login to specific users. You can set up the 5700 VFA in any or all of the available Open Modes, or in Closed Mode to all nodes.



*5700 VFA (MXM) Security Mode*

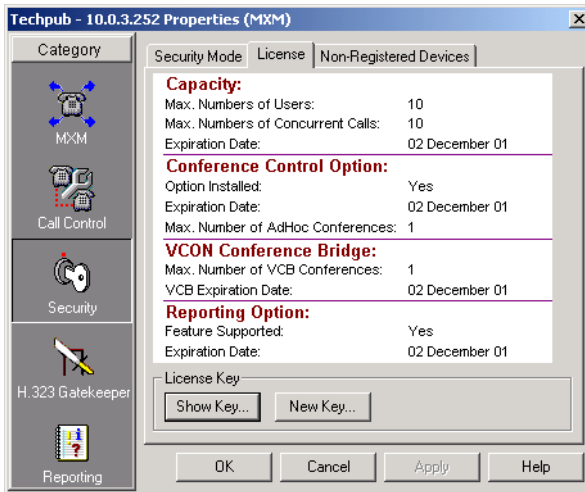
Set the security mode as follows:

### *System Security Mode*

<b>Open Mode</b>	Select to allow automatic login privileges to various types of nodes, which are listed below this option. A deselected type must be manually granted or refused login permission by the administrator
<b>Mitel Networks or VCON end points</b>	Select to automatically accept VCON or Mitel Networks systems that register (5750 DV, 5760 VC, Escort, Cruiser 150/384, MediaConnect 6000/8000, VCON Conference Bridge).
<b>Non-Mitel Networks end points</b>	Select to automatically log in any non-Mitel Networks H.323 videoconferencing node that registers.
<b>MCUs</b>	Select to automatically log in any MCU that registers.
<b>Neighboring Gatekeepers (Zones)</b>	Select to automatically list other 5700 VFA and Gatekeepers that the local 5700 VFA calls or that contact it. In addition, this selection enables registered 5700 VFA nodes to receive calls from other zones. These zones appear automatically in the Main View.
<b>Closed Mode</b>	Select to restrict login privileges. All nodes that attempt to register must be granted login permission manually or rejected by the administrator.
<b>Login Status View</b>	Click this link to display the Login Status Table. The far right column of the table shows the login status for specified nodes. For more details about the Login Status Table, see “Viewing the Login Status” on page 4-18.

### License

The **License** tab shows the number of registered users that the 5700 VFA is licensed to service. If you need to increase these numbers, contact your local Mitel Networks distributor.



#### *License Properties*

#### *Capacity*

**Max. Number of Users** Maximum number of nodes that this 5700 VFA is permitted to register, according to its current license.

**Max. Number of Concurrent Calls** Maximum number of registered nodes that can be engaged in calls at one time.

**Expiration Date** Depending on your license, this will be either **Never** or the date that your 5700 VFA license expires. If your license is temporary, see “Installing the 5700 VFA Server” on page 2-3 for information about updating your license.

### *Conference Control Option*

- Option Installed** Indicates if your 5700 VFA includes *Ad-hoc Videoconferencing* and *Remote Call Initiation and Hangup*.
- Expiration Date** Depending on your license, this will be either **Never** or the date that this license expires.
- Max. Number of Ad-hoc Conferences** The number of simultaneous ad-hoc videoconferences allowed.

### *VCON Conference Bridge*

- Max. Number of VCB Conferences** The number of simultaneous ad-hoc videoconferences managed by the VCB allowed.
- Expiration Date** Depending on your license, this will be either **Never** or the date that this license expires.

### *Reporting Option*

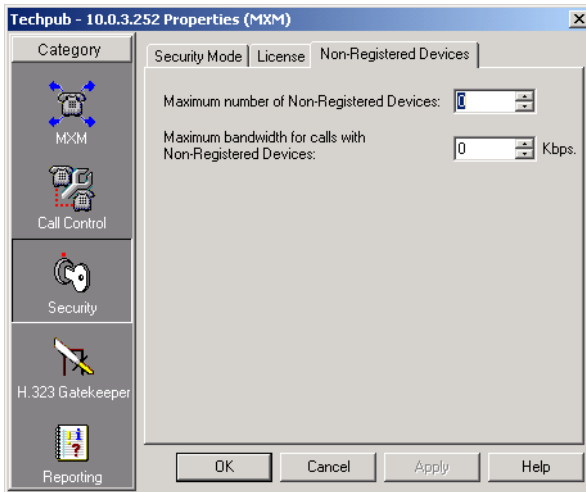
- Feature Supported** Indicates if your 5700 VFA includes compilation of call records for billing and asset management reports.
- Expiration Date** Depending on your license, this will be either **Never** or the date that this license expires.

### *License Key*

- Show Key** Click to view the current key code for this 5700 VFA.
- New Key** Your initial key code is valid for 30 days. To extend it, or to purchase a key code for more users, send the file, *c:\Program Files\Vcon\userkey.txt*, to your local Mitel Networks distributor. You will then receive the appropriate key without time restrictions.
- You will receive a new *userkey.txt* file from your Mitel Networks distributor. To apply the new key, click this button, browse to select the file and click **Open**.

### Non-Registered Devices

In the **Non-Registered Devices** tab, define how the 5700 VFA allows registered end points to engage in videoconferences with nodes that are unable to register with the 5700 VFA.



#### *Non-Registered End Point Settings*

Set the properties as follows:

**Maximum number of non-registered devices**

Maximum number of non-registered end points that may be engaged in videoconferences with registered users.

**Maximum bandwidth for calls with non-registered devices**

Select the limit on the amount of bandwidth (in Kbps) that may be allocated to these videoconferences. The value must be a multiple of 100 (such as 200, 5000, 999000).



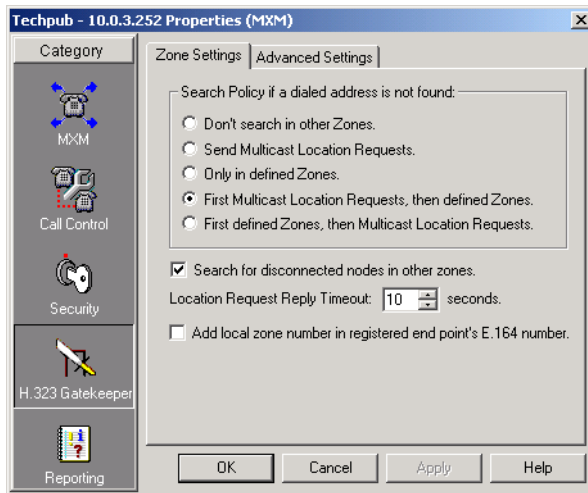
## 5.4 H.323 Gatekeeper Properties

In the 5700 VFA system Properties dialog box, click the H.323 Gatekeeper icon to access the following property pages:

- ☐ Zone Settings
- ☐ Advanced Settings

### Zone Settings

In the **Zone Settings** tab, define the method of search that the 5700 VFA uses when a registered 5700 VFA node dials a party in a different zone (*neighbor node*).



5700 VFA (MXM) Gatekeeper Zone Settings

#### Search Policy

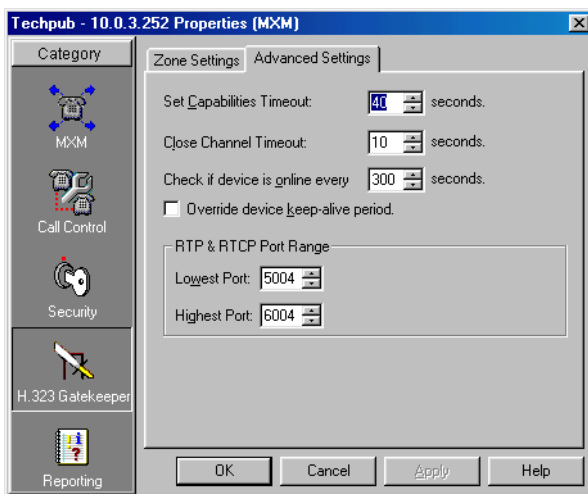
**If a dialed address is not found**, the 5700 VFA will continue (or not) to search for that address according to one of the following policies:

- |   |   |
|---|---|
| <b>Don't search in other zones</b>      | The 5700 VFA will reject the call without searching in other zones.   |
| <b>Send Multicast Location Requests</b> | The 5700 VFA sends out identical search requests throughout the connected network(s). The call is connected to the first zone that sends a positive response (party found) to the 5700 VFA. |

<b>Only in Defined Zones</b>	The 5700 VFA only sends search requests to zones that are listed in the 5700 VFA Administrator, or “known” to the 5700 VFA. The call is connected to the first zone that sends a positive response (party found) to the 5700 VFA.
<b>First Multicast Location Requests, then in Defined Zones</b>	The 5700 VFA initially send search requests throughout the connected network(s) using the Multicast method. If this fails to find the target node, the 5700 VFA will then send search requests to zones known to the 5700 VFA.
<b>First Defined Zones, then Multicast Location Requests</b>	The 5700 VFA initially sends search requests to zones known to the 5700 VFA. If this fails to find the target node, the 5700 VFA will then send search requests throughout the connected network(s) using the Multicast method.
<b>Search for disconnected nodes in other zones</b>	If a call is dialed to an 5700 VFA node that is currently not logged in, the 5700 VFA continues to search for that node in other known zones.
<b>Location Request Reply Timeout</b>	Select the maximum interval for the 5700 VFA to receive a reply from the dialed destination's gatekeeper. If this interval passes before the 5700 VFA receives this reply, the call is disconnected.
<b>Add local zone number in registered end point's E.164 number</b>	Select this option to append zone numbers to the directory numbers of all listed nodes.

## Advanced Settings

In the **Advanced Settings** tab, set the intervals at which the 5700 VFA activates various timeouts.



*5700 VFA (MXM) Gatekeeper Advanced Settings*

### **Set Capabilities Timeout**

Select the maximum interval for registered end points to receive the H.323 capabilities of the dialed destination. If this interval passes before the end point receives this information, the 5700 VFA disconnects the call.

### **Close Channel Timeout**

Select the maximum time for H.323 logical channels to close when a meeting ends.

### **Check if device is online**

Select the interval for checking if all registered nodes are connected to the 5700 VFA. At this time, the 5700 VFA polls the devices. If it does not receive a response from a node, the node is logged off.

### **Override device keep-alive period**

Select to use the 5700 VFA polling interval instead of any intervals that may have been defined in individual nodes.

### **Lowest Port/ Highest Port**

The 5700 VFA allocates ports for video and audio during videoconferences. The Lowest Port and Highest Port define the allocation range.

This allocation meets the Real-Time Protocol (RTP) and Real-Time Control Protocol (RTCP) specifications, which enable applications to synchronize and spool audio and video information.

This feature is only applicable to VCON MeetingPoint and VDK end points.

## 5.5 Reporting Properties

In the 5700 VFA system Properties dialog box, click the Reporting icon to access the following property pages:

- ☐ Billing
- ☐ Event Log

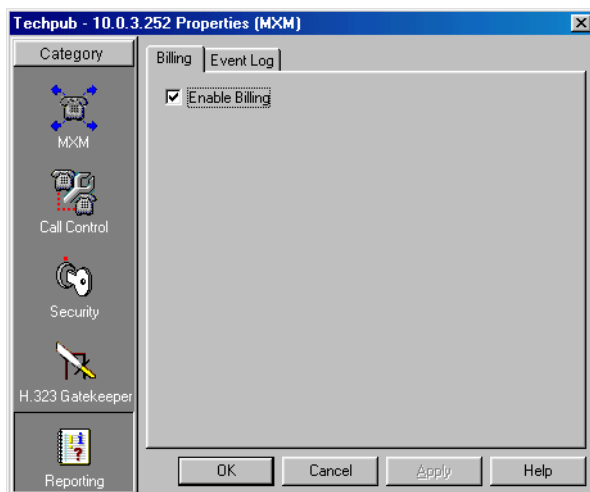
### Billing

---

**NOTE** Compilation of call records is available only for licensed users of the Reporting Option. If you want to add this option to your 5700 VFA, please contact your local Mitel Networks distributor.

---

In the **Billing** tab, select **Enable Billing** to list all videoconferences and audio calls within the local zone in a Call Details Record (CDR).

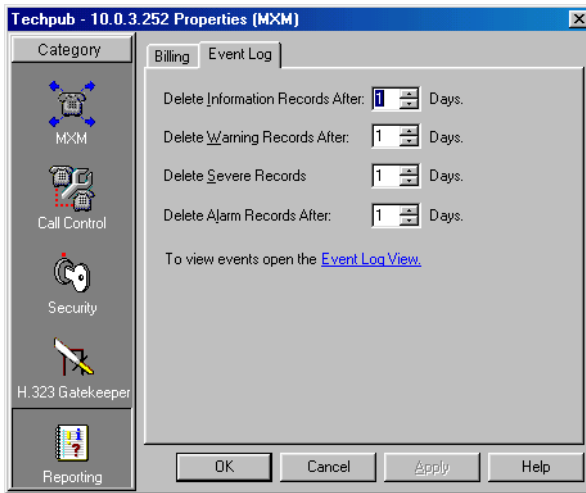


*Billing Properties*

For more information about CDRs and call accounting, see **Getting Started>Monitoring System Status>Call Accounting** in the 5700 VFA online help.

## Event Log

In the **Event Log** tab, define the length of time that the 5700 VFA keeps records of specific types of events.



*Event Log Properties*

Set record-keeping periods as follows:

<b>Delete Informatory Records After</b>	Amount of time until informative records are deleted from the log.
<b>Delete Warning Records After</b>	Amount of time until warning records are deleted from the log.
<b>Delete Severe Records After</b>	Amount of time until severe error records are deleted from the log.
<b>Delete Alarm Records After</b>	Amount of time until alarm records are deleted from the log.
<b>Event Log View</b>	To view the event log, click this link

## 6 *DEFINING END POINT NODES*

End point nodes can represent several different types of users who log in to the 5700 VFA and require its services. This chapter provides explanations for defining registered VCON MeetingPoint, Group System end points, or non-VCON or Mitel Networks videoconferencing applications.

The videoconferencing system configurations of registered VCON MeetingPoint 4.5 (and higher) end points (5750 DV, 5760 VC, Escort, Cruiser, and MediaConnect 8000) may be viewed and changed from the 5700 VFA. For more information see Appendixes A and B, respectively.

### 6.1 *Setting Up an End Point*

In order to register, an end point contacts the 5700 VFA (see “Granting Login Permission” on page 4-4). If login permission is granted automatically (Open Mode), the end point retains the default 5700 VFA properties. These default properties may be viewed or changed in the following templates:

- Desktop template (for 5750 DV, Escort and Cruiser systems)
- 5760 VC template
- MC6000 template (for MediaConnect 6000 systems)
- H.323 end point template (for MeetingPoint 4.01 and non-VCON end points).

When you grant login permission manually, you can register the node with the default 5700 VFA properties or set the properties during the login process.

---

**NOTE** For information about rejecting a login request, see “Deleting a Login Request” on page 4-6.

---

#### ► **To set up an end point’s properties**

1. After login permission is granted:

**Open Mode** In the Administrator window, registered Mitel Networks end points appear under the **Mitel Networks Systems** group. If enabled, non-Mitel Networks end points appear under the **H.323 End Points** group. Double-click the new end point to set up its properties.

**Closed Mode** The New End Point Wizard appears.

2. Change properties according to your system specifications. To set different types of end point properties, click the appropriate tab at the top of the dialog box (in the New End Point Wizard, click **Next** to advance to the next properties page). For explanations about the various properties, see “Setting End Point 5700 VFA Properties” on page 6-3.
3. To implement all the changes and close the dialog box, click **OK** (in the last page of the New end point Wizard, click **Finish**).

### Login Attempt by Duplicate Users

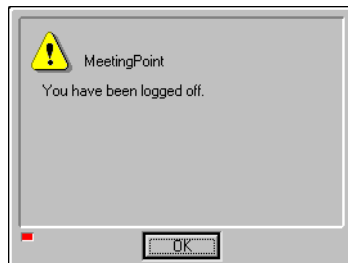
The same User Name may not be logged in to the 5700 VFA from more than one end point at the same time.

In case of a duplicate login attempt from a MeetingPoint 4.5 (or higher) end point, the user is given the choice of:

- ☐ Continuing to log in using the same name, causing the other end point to be disconnected from the server.
- ☐ Logging in using a different User Name.



*Duplicate User Login Message*



*Message on Disconnected End Point*

---

**NOTE** For other VCON or Mitel Networks and non-VCON or Mitel Networks end points, duplicate login attempts are rejected without explanation from the 5700 VFA.

---



## 6.2 Setting End Point 5700 VFA Properties

The administrator can set 5700 VFA properties for all videoconferencing end points. 5700 VFA end point properties define how the end points operate as parts of the 5700 VFA videoconferencing network.

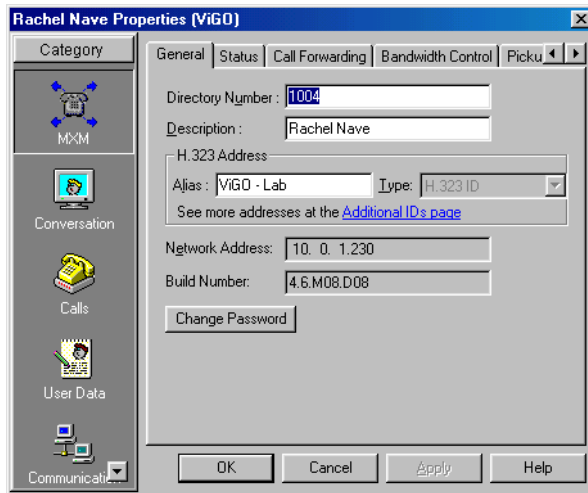
---

**NOTE** If an end point logs in during Closed Mode, these properties are also set by the administrator during the initial registration process.

---

### General Properties

The **General** tab contains identity information of the selected end point.



*Mitel Networks Desktop End Point - General Properties*

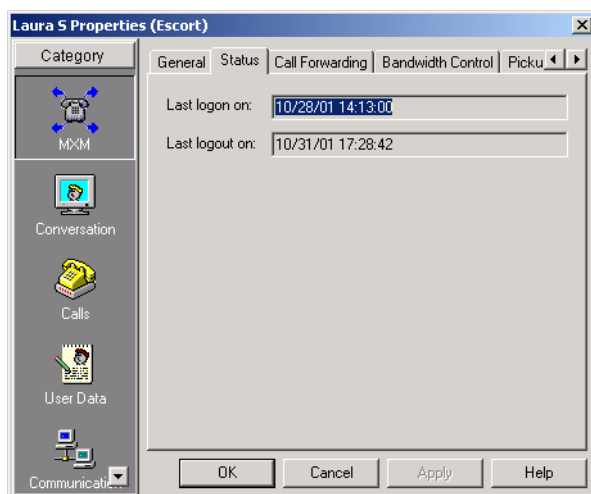
The **General** Properties tab contains the following properties:

<b>Directory Number</b>	Internal directory number (E.164 number) assigned to the end point. Any other end point registered with this 5700 VFA can call this end point by dialing this number.
<b>Description</b>	Identity or description for the end point. This name will appear in the Main View after the login process is finished.
<b>Alias</b>	The end point's alias name.

<b>Type</b>	The type of address used by the end point for registering with the 5700 VFA.
<b>Additional IDs page</b>	Click this link to view any additional IDs that have been configured for this end point.
<b>Network Address</b>	IP address of the end point.
<b>Build Number</b>	<b><i>For MeetingPoint 4.5 and higher version only</i></b> Version information for the end point's videoconferencing application.
<b>Change Password</b>	<b><i>For MeetingPoint 4.5 and higher version only</i></b> For changing the end point's 5700 VFA login password. This change takes effect the next time the end point logs in. <ol style="list-style-type: none"><li>1. In the <b>New</b> box, type a new password for the end point.</li><li>2. In the <b>Confirm</b> box, type the new password again.</li></ol>

## Status Properties

The Status Properties page displays the most recent dates that the selected node logged in and out of the 5700 VFA.



*H.323 End Point - Status Properties*

## Call Forwarding Properties

In the **Call Forwarding** tab, set alternate destinations for the 5700 VFA to route calls. Call forwarding for a specific node may be performed:

- ☐ At all times (unconditionally)
- ☐ If the node is busy in another videoconference
- ☐ If the call is not answered by the node.



### *H.323 End Point - Call Forwarding Properties*

Set alternate destination numbers for the following conditions:

#### *Unconditional Forward*

**When this extension is called, dial this number**

Select this option to set an alternate destination for every call to this end point. In the list, choose the alternate destination. The forwarding occurs unconditionally and immediately.

If this option is selected, the **Busy** and **No Answer** options are not available.

*Busy*

**When this extension is busy, dial this number**

Select this option to set an alternate destination for a call if this end point is engaged in another call at the same time. In the list, choose the alternate destination. The forwarding occurs immediately.

*No Answer*

**When this extension is not answering, dial this number**

Select this option to set an alternate destination for a call if this node does not answer after a specified time. In the list, select the alternate destination.

**Time extension can ring without being answered**

Type the number of seconds before the system forwards unanswered calls.

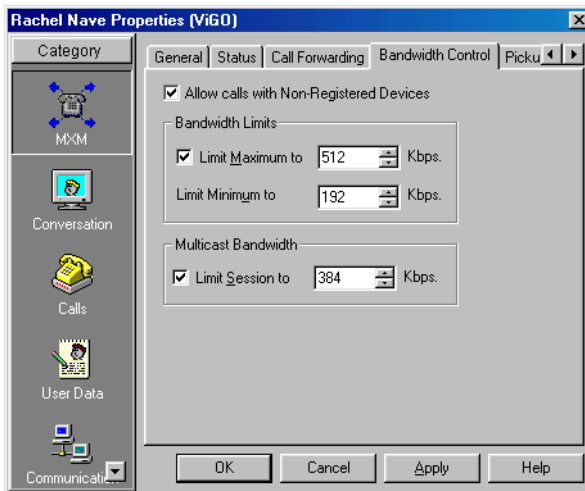
---

**NOTE** A “\*” entry indicates that the particular forwarding setting is not active.

---

## Bandwidth Control Properties

In the **Bandwidth Control** tab, you can define the permitted amount of bandwidth that the end point can use when communicating with others.



*H.323 End Point - Bandwidth Control*

Set bandwidth properties as follows:

- Allow calls with Non-registered Devices** Select to enable this end point to engage in videoconferences with parties that are not listed or cannot register with the local 5700 VFA.
- Limit Number of Concurrent Calls to** Select the number of calls that can go to or from the end point at the same time. This feature is available only to end points that support concurrent videoconferences.

### *Bandwidth Limits*

- Limit Maximum to** Select this option to define the highest amount of bandwidth that the end point may use. In the list, choose the bandwidth.
- Limit Minimum to** Choose the lowest amount of bandwidth that the end point may use.

### *Multicast Bandwidth*

- Limit Session to** Select this option to define a bandwidth limit for the end point's participation in an Interactive Multicast videoconference. The end point is not permitted to take part in a multicast session that exceeds this limit.
- In the list, choose the bandwidth limit.

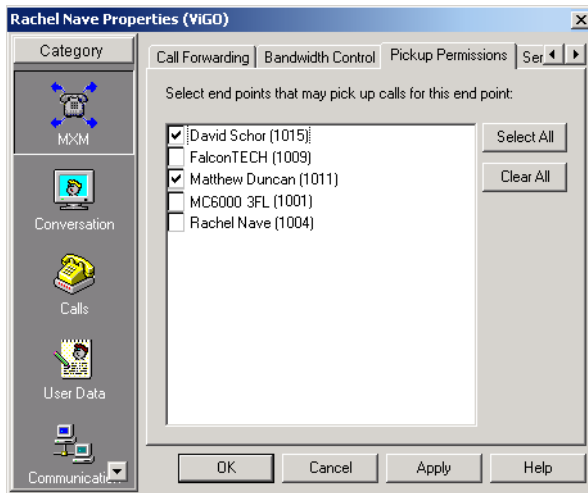
## Pickup Permissions Properties

In the **Pickup Permissions** tab, you can authorize other end points to answer a video meeting call to the selected end point. Only end points that are registered with the same 5700 VFA may receive pickup permission for each other.

For example, suppose Rachel is a video meeting call's destination. If David has pickup permission for Rachel's calls, he can answer this video meeting call.

In the list, select any number of end points that may pick up a call to this specific end point.

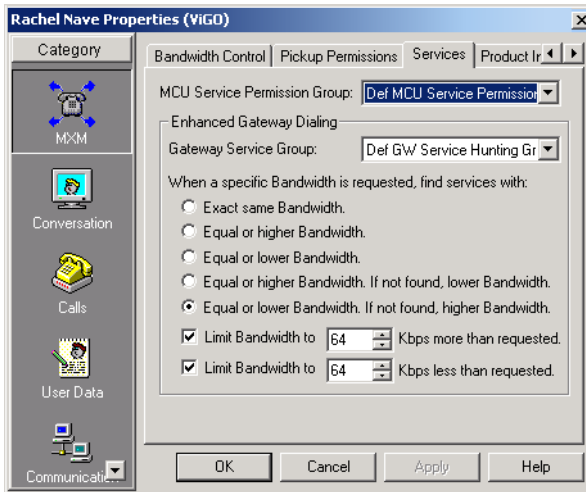
- To grant pickup permission to all end points in the list, click **Select All**.
- To clear all the selections, click **Clear All**.



*H.323 End Point - Pickup Permissions*

### Services Properties

In the **Services** tab, you can define bandwidth allocation policy for any MCU conferences or calls through a gateway that this end point engages in.



#### *H.323 End Point - Services Properties*

Set the Services properties as follows:

#### **MCU Service Permission Group**

Select the name of the MCU Service Permission group from which this end point can receive services. The available options are all MCU Service Permission groups that are listed in the Main View.

#### **Gateway Service Group**

Select the name of the gateway service hunting group from which this end point can receive services. If the end point dials the defined gateway access number (default is "9"), it may use any of the included services within that particular Service group.

The available options are all gateway service hunting groups that are listed in the Main View.



Some calls through the gateway may specify a required bandwidth. The following options define how the 5700 VFA allocates bandwidth in this situation:

<b>Exact same bandwidth</b>	Provide a choice only among services that provide the exact bandwidth required.
<b>Equal or higher bandwidth</b>	Provide a choice only among services that provide the exact bandwidth required or more.
<b>Equal or lower bandwidth</b>	Provide a choice only among services that provide the exact bandwidth required or less.
<b>Equal or higher bandwidth - if not found, lower bandwidth</b>	Provide a choice among services that provide the exact bandwidth required or more. If none exist, then offer services allocating lower than required bandwidth.
<b>Equal or lower bandwidth - if not found, higher bandwidth</b>	Provide a choice among services that provide the exact bandwidth required or less. If none exist, then offer services allocating higher than required bandwidth.
<b>Limit bandwidth to ____ Kbps more (or less) than requested</b>	<p>Select the appropriate option to enable only a specific amount of deviation (higher or lower) from the requested bandwidth. From the appropriate list, choose the amount of deviation (in Kbps) allowed.</p> <p>For example, if you want to allow no more than an additional 128 Kbps, then choose <b>128</b> from the appropriate list.</p>

### Product Information Properties

The **Product Info** tab shows identification information about the end point's videoconferencing system's manufacturer and model.



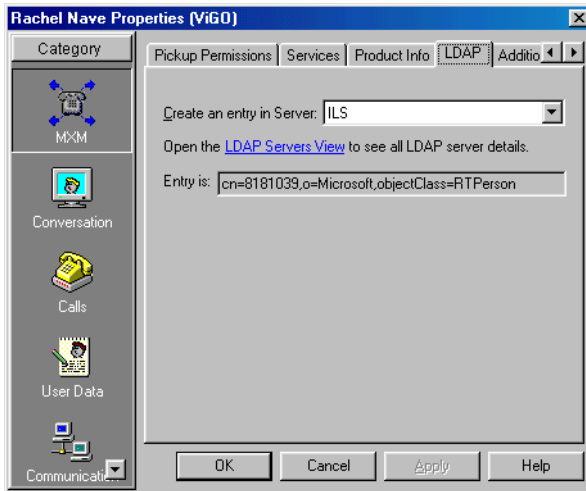
#### *H.323 End Point - Product Information Properties*

The tab provides the following information:

<b>Vendor ID</b>	Identity of the end point manufacturer
<b>Product ID</b>	Identity of the conferencing tool used by the end point.
<b>Version ID</b>	Version number of the videoconferencing tool, for identification purposes.

## LDAP Properties

The LDAP tab provides information about the end point's registration, if applicable, in an LDAP (Lightweight Directory Access Protocol) server based on the X.500 standard for directory services.



*H.323 End Point - LDAP Properties*

Set the end point's LDAP configuration as follows:

**Create an Entry in Server**

The central LDAP server that contains the subdirectory in which the end point should be listed. You must create this subdirectory as a level within an 5700 VFA hierarchy

**LDAP Servers View**

Click this link to see location and access information about the available LDAP servers.

**Entry is:**

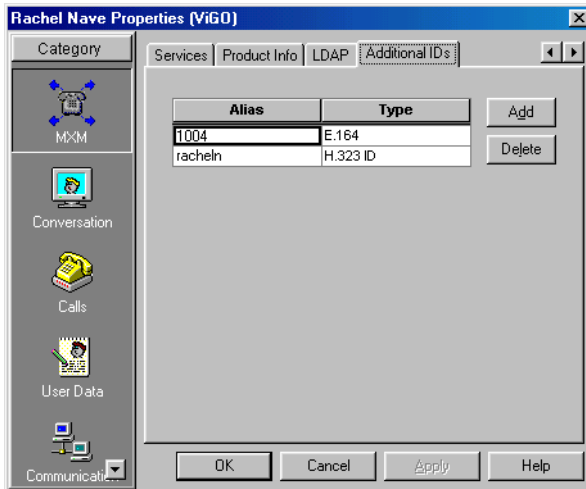
Name or number of the end point's entry in the directory. This entry is automatically set by the 5700 VFA.

For more information about registering in LDAP servers, see Chapter 10, "Registering with LDAP Directories".

## Additional IDs Properties

In addition to its directory (E.164) number, a node may have other addresses that may be used to dial it, such as additional E.164 addresses and/or H.323 Alias. In the **Additional ID** page, you may enter these, if applicable.

For example, this feature supports the Multiple Subscriber Network (MSN) service, which assigns multiple phone numbers to one ISDN line. MSN is supported by some ISDN switches.



*H.323 End Point - Additional IDs Properties*

### ➤ To add additional IDs for a node

1. Click **Add** to display a table row.
2. In the **Alias** column, type the node's additional E.164 number, H.323 alias, URL, or e-mail address.
3. In the **Type** column, click and select the address type.

---

**NOTE** To delete an entry, click in its row and then click **Delete**.

---

## 7 REGISTERING GATEWAYS

The 5700 VFA supports the use of H.323 gateways for connecting calls from registered end points to remote parties over ISDN networks. A gateway works as mediator between the two systems, translating between IP and ISDN protocols.

Each type of gateway has its own access number and dialing syntax. The dialing syntax usually includes the gateway's access number and the ISDN number of the remote party. For greater dialing flexibility, the syntax may also include delimiters.

Gateway services are also added to the 5700 VFA while gateways are granted login permission to the 5700 VFA. A gateway service defines the amount of available bandwidth and the type of information transmitted (such as voice only, video\voice, video\voice\data). One Gateway Service access number is created for each service type. At any time, you can add or edit available service entries from the Main View.

You can also organize sets of services within *Gateway Service Hunting Groups*. By associating end points with Gateway Service Hunting Groups, you can allocate available bandwidth to your organization's end points according to a certain resources allocation policy or geographic considerations. When an end point dials the Gateway access number, the 5700 VFA searches in the end point's Gateway services hunting group for an available service.

### 7.1 Logging in a New Gateway

Registration of gateways is always in Closed mode - a gateway cannot register automatically to the 5700 VFA. To accept the initial login attempt, the administrator must manually grant permission and then define its 5700 VFA properties.

#### ► To register a gateway to the 5700 VFA

1. In the Gateway's configuration application, enter the IP address of the 5700 VFA and complete the appropriate commands to register.

In the 5700 VFA Administrator application, a Login Request notification appears on the Administrator tree.

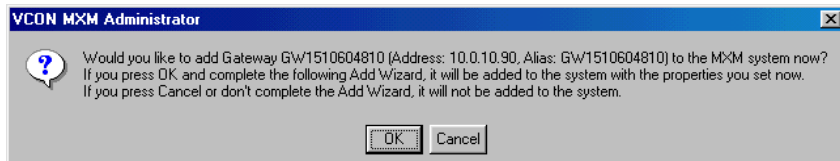
2. Expand the Login Request item.

Video Conferencing Item	Number/Address	Connection State
<div> <div>Techpub - su logged in</div> <div> <div>Login Requests</div> <div> <div>Gw1510604810</div> <div>10.0.10.90</div> </div> </div> </div>	10.0.3.252	No Calls

### *Login Request Notification for Gateway*

- Right-click the Gateway name and then click **Grant Login Permission**.

A message appears, asking if you want to register the gateway now.



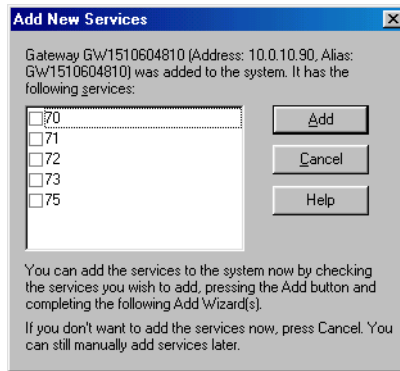
### *Gateway Registration Request*

- Click **OK** if you want to manually set the gateway's properties. The New Gateway Wizard appears. The original property values are the default values defined in the H.323 gateway template (see "Setting Up Templates" on page 4-28).

If you click **Cancel**, the gateway does not log in, but remains under the Login Requests object until you delete it (and the gateway stops trying to log in). See "Deleting a Login Request" on page 4-6.

- Change properties according to your system specifications, or keep the default settings. When you finish each page of the wizard, click **Next**. For explanations about the various properties, see "Setting Gateway Properties" on page 7-4.
- When you finish the last page, click **Finish**.

The Add New Services dialog box displays a list of all gateway services configured in the new gateway.



### *Adding Gateway Services*

7. Select the services that will be available in the 5700 VFA zone, and then click **Add**.

The New Gateway Services wizard appears.

8. Define the gateway service properties according to your system and gateway specifications, or keep the default settings. When you finish each page of the wizard, click **Next**. For explanations about the various properties, see “Setting Gateway Service Properties” on page 7-8.

The wizard is repeated for each service that you selected in the previous step.

9. When you finish the last page, click **Finish**.

## 7.2 Setting Gateway Properties

In step 5 of “Logging in a New Gateway” on page 7-2, the New Gateway Wizard provided the chance to change various gateway properties. This section describes these properties.

### General Properties

The **General** page contains identity information of the new gateway.

*New Gateway - General Properties*

Define the following information:

<b>Description</b>	Identity of the gateway. This name will appear in the Main View after the login process is finished.
<i>H.323 Address</i>	
<b>Alias</b>	The gateway's alias name.
<b>Type</b>	The type of address used by the gateway for registering with the 5700 VFA.
<b>Network Address</b>	IP address of the gateway.
	Changing the gateway's IP address must be done through its configuration utility. The address cannot be changed from the 5700 VFA.



## Product Information Properties

The **Product Info** page provides information about the gateway's manufacturer and model. In addition, you can enable or disable the exchange functionalities supported for videoconference calls through the gateway.

*New Gateway - Product Information Properties*

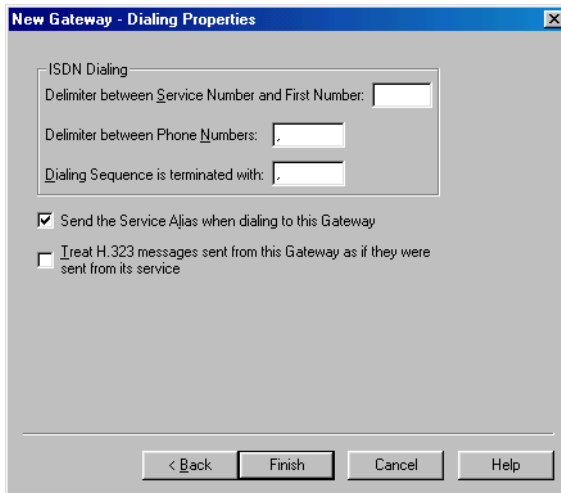
<b>Vendor ID</b>	Identity of the manufacturer.
<b>Product ID</b>	Manufacturer's identity of the gateway product.
<b>Version ID</b>	Manufacturer's version identification of the gateway product.
<b>Location</b>	Physical location of the gateway.
<b>5700 VFA Transfer Model</b>	If selected, videoconferences through this gateway may be transferred to another end point.
<b>H.450.3 (Call Diversion services)</b>	If selected, calls through this gateway may be forwarded according to the capabilities of H.450.3. It provides additional information about forwarded calls than Forward Facility does, such as the original destination of the call.
<b>Forward Facility messages</b>	If selected, calls through this gateway may be forwarded according to Forward Facility capabilities. A forwarded call does not provide information about the redirection.

**NOTE** If the selected gateway supports both H.450.3 and Forward Facility, we recommend enabling H.450.3.

<b>Empty Capability Set</b>	If selected, calls may pass through this gateway before the initiating end point receives a capability set. This option helps increase the speed of Call Transfer and Ad-hoc Videoconferences.
<b>Information Request Messages (IRQ)</b>	If selected, the 5700 VFA can send IRQ messages checking if the gateway is online.
<b>Add New Services to this Group</b>	If a new gateway service is added to this gateway's configuration, it will automatically be included in the hunting group selected here. To avoid adding services to hunting groups automatically, select <b>No Group</b> .

### ISDN Dialing Properties

Dialing conventions vary among gateways, according to the vendor. Refer to your gateway's documentation for the specific delimiters or other characters that are required in order to access the gateway's services.



*New Gateway - ISDN Dialing Properties*

In the **Dialing** page, define the following information:

*ISDN Dialing*

<b>Delimiter between Service Number and First Number</b>	Type the character, if applicable, that the 5700 VFA adds before the first ISDN number.
<b>Delimiter between Phone Numbers</b>	Type the character, if applicable, that the 5700 VFA adds between each ISDN number to be dialed.
<b>Dialing sequence is terminated with</b>	Type the character, if applicable, that the 5700 VFA must enter at the end of the dialing string.

---

**NOTE** All of these values must be identical to the dialing configuration of the Gateway.

---

<b>Send the Service Alias when dialing to this gateway</b>	Video gateways support multiple services. If the gateway dialing syntax requires the inclusion of a service number, select this option.
<b>Treat H.323 messages sent from this gateway as if they were sent from its service</b>	Select this option if the new gateway does not define services. The 5700 VFA will handle messages sent through the gateway as H.323 64K Voice messages.

### 7.3 Setting Gateway Service Properties

Gateway services are added to the 5700 VFA during the gateway registration process. A gateway service defines the amount of available bandwidth. One Gateway Service access number is created for each service type. At any time, you can add or edit available service entries from the Main View.

#### General Properties

The **General** page contains identity information of the new gateway service.

**New Gateway Service - General Properties**

Directory Number : 70

Description : 70

H.323 Address

Alias : 70 Type: E.164

See more addresses at the [Additional IDs page](#)

Network Address : 10. 0. 10. 90

< Back Next > Cancel Help

*New Gateway Service - General Properties*

Define the following information:

**Number** Directory number of this service. This number will appear in the Main View after the login process finishes.

**Description** Identity of the service.

#### *H.323 Address*

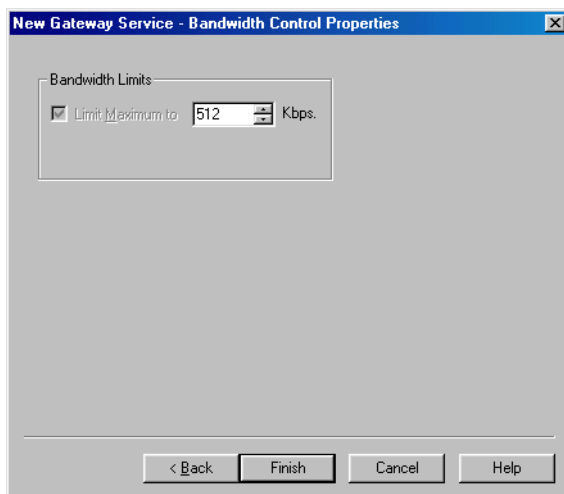
**Alias** The service's alias.

**Type** The type of alias or address.

**Network Address** IP address of the gateway.

## Bandwidth Control Properties

In the **Bandwidth Control** page, enter the exact bandwidth defined in the gateway's configuration.



*New Gateway Service - Bandwidth Control Properties*

### **7.4 Gateway Service Hunting Groups**

A Gateway Service hunting group contains multiple gateway services that are available to particular end points when they start LAN to ISDN videoconferences. One Gateway Service Hunting Group can contain different bandwidths and different Gateway devices.

Every registered end point may be associated with a gateway services hunting group (see “Services Properties” on page 6-10). When an end point dials the gateway access number, the 5700 VFA searches for the services available to its associated group.

For example, if an end point specifies 384 Kbps bandwidth, the 5700 VFA checks in the associated hunting group if a gateway service providing 384 Kbps is permitted for the end point. If not, the 5700 VFA searches for the closest available service (in accordance to the end point’s Service properties).

This ability can help you allocate available ISDN resources to various end points according to a certain resources allocation policy or geographic considerations.

➤ To set up a hunting group of gateway services



1. Click the **New Gateway Service Hunting Group** button.

The New Gateway Service Hunting Group wizard opens to the General Properties dialog box.

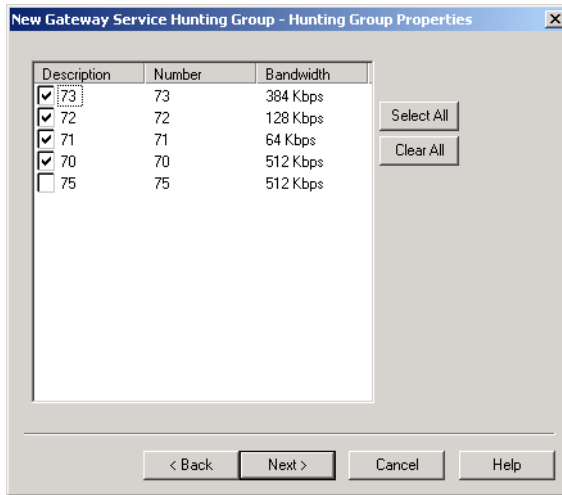
*Gateway Services Hunting Group - General Properties*

2. In the **General** page, type the following identity information of the new gateway service:

**Directory Number** Assign a directory number for the whole hunting group.

**Description** Type an identity for the group. This description does not affect the operation of the system.

Click **Next**. The Hunting Group Properties dialog box appears.



### *Gateway Services Hunting Group - Hunting Group Properties*

3. Select any number of services from the list to be in the hunting group. The selected services will be the only ones available to associated end points.
  - To place all services in the hunting group, click **Select All**.
  - To clear all the selections, click **Clear All**.

Click **Next**. The Additional IDs Properties dialog box appears.

4. In addition to its directory (E.164) number, a hunting group may have other addresses that may be used to dial it, such as additional E.164 addresses and/or H.323 Alias. In the **Additional ID** page, you may enter these, if applicable.

For more information about adding Additional IDs, see “Additional IDs Properties” on page 6-14.

5. Click **Finish** to implement the settings and close the dialog box.



## 8 REGISTERING AN MCU

The Mitel Networks 5700 VFA supports the use of MCUs (Multipoint Control Unit) for connecting registered end points with a number of other end points in a multipoint videoconference.

---

### **NOTE For Accord MGC users**

The operation of Accord MGC in conjunction with the 5700 VFA requires a special configuration. For more information, see Appendix D, “Using Accord™ MGC with the 5700 VFA”.

---

### 8.1 Logging in a New MCU

If the 5700 VFA is in Open Mode for MCUs, any MCU that attempts to register is automatically logged in.

If the system is in Closed Mode, an MCU must be granted login permission by an administrator with Super User privileges. During this process, the administrator must define or confirm the MCU's 5700 VFA properties.

#### ► To register an MCU to the 5700 VFA

1. In the MCU's configuration application, enter the IP address of the 5700 VFA and complete the appropriate commands to register.

If the 5700 VFA is in Closed Mode for MCUs, a Login Request notification appears on the Administrator tree.

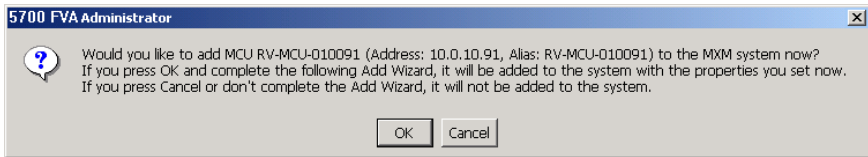
2. Expand the Login Request item.

Video Conferencing Item	Number/Address	Connection State
 <b>Techpub - su logged in</b>	10.0.3.252	No Calls
 Login Requests		
 RV-MCU-010091	10.0.10.91	

*Login Request Notification for MCU*

3. Right-click the MCU name and then click **Grant Login Permission**.

A message appears, asking if you want to register the MCU now.



### *MCU Registration Request*

4. Click **OK** if you want to manually set the MCU's properties, such as exchange function capabilities (Product Info). The New MCU Wizard appears. The original property values are the default values defined in the H.323 MCU template (see "Setting Up Templates" on page D4-28).

If you click **Cancel**, the MCU does not log in, but remains under the Login Requests object until you delete it (and the MCU stops trying to log in). See "Deleting a Login Request" on page D4-6.

5. Change properties according to your system specifications, or keep the default settings. When you finish each page of the wizard, click **Next**. For explanations about the various properties, see "Setting MCU Properties" on page D8-3.
6. When you finish the last page, click **Finish**.

## 8.2 Setting MCU Properties

In step 5 of “Logging in a New MCU” on page 8-2, the Add Wizard provided the chance to change various MCU properties. This section describes these properties.

### General Properties

The **General** page contains identity information of the new MCU.

*New MCU - General Properties*

In the **General** Properties tab, the following properties appear:

<b>Description</b>	Identity of the MCU. This name will appear in the Main View after the login process is finished.
--------------------	--

#### *H.323 Address*

<b>Alias</b>	The MCU's alias name.
--------------	-----------------------

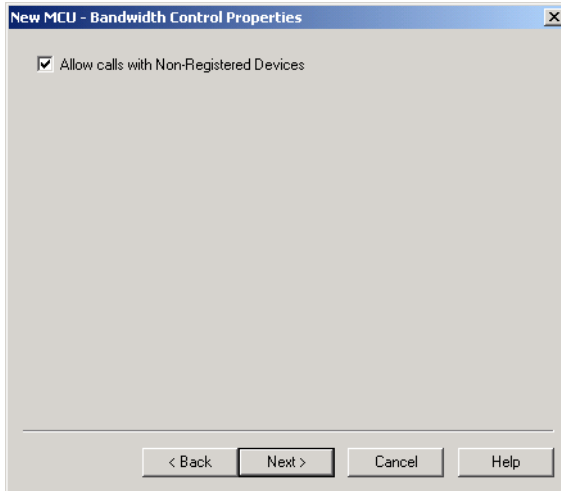
<b>Type</b>	The type of address used by the MCU for registering with the 5700 VFA.
-------------	--

<b>Network Address</b>	IP address of the MCU.
------------------------	------------------------

Changing the MCU's IP address must be done through its configuration utility. The address cannot be changed from the 5700 VFA.

### Bandwidth Control Properties

In the **Bandwidth Control** tab, select **Allow calls with Non-registered Devices** to allow non-registered devices to participate in any multipoint videoconferences managed by this MCU.



*New MCU - Bandwidth Control Properties*

## Product Information Properties

The **Product Info** page provides information about the MCU's manufacturer and model. In addition, you can enable or disable the exchange functionalities supported for multipoint videoconferences through the MCU.

### *New MCU - H.323 Properties*

<b>Vendor ID</b>	Identity of the manufacturer.
<b>Product ID</b>	Manufacturer's identity of the MCU product.
<b>Version ID</b>	Manufacturer's version identification of the MCU product.
<b>Location</b>	Physical location of the MCU.
<b>5700 VFA Transfer Model</b>	If selected, videoconferences through this MCU may be transferred to another end point.
<b>H.450.3 (Call Diversion services)</b>	If selected, calls through this MCU may be forwarded according to the capabilities of H.450.3. It provides additional information about forwarded calls than Forward Facility does, such as the original destination of the call.

**Forward Facility messages** If selected, calls through this MCU may be forwarded according to Forward Facility capabilities. A forwarded call does not provide information about the redirection.

---

**NOTE** If the selected MCU supports both H.450.3 and Forward Facility, we recommend enabling H.450.3.

---

**Empty Capability Set** If selected, calls may pass through this MCU before the participating end points receive capability sets. This option helps increase the speed of Call Transfer and Ad-hoc Videoconferences.

**Information Request Messages (IRQ)** If selected, the 5700 VFA can send IRQ messages checking if the MCU is online.

**Add New Services to this Group** If a new MCU service is added to this MCU's configuration, it will automatically be included in the permission group selected here. To avoid adding services to permission groups automatically, select **No Group**.

### Additional ID Properties

In addition to its directory (E.164) number, an MCU may have other addresses that may be used to dial it, such as additional E.164 addresses and/or H.323 Alias. In the **Additional ID** page, you may enter these, if applicable.

For more information about adding Additional IDs, see “Additional IDs Properties” on page D6-14.

### 8.3 *MCU Services*

MCU Services define the MCU resources used during a multipoint videoconference.

A registered MCU's services are automatically listed in the 5700 VFA Administrator after the particular MCU is granted login permission to the 5700 VFA. One directory number is created for each service type. At any time, you can edit service entries from the Main View.

---

**NOTE For Accord MGC users**

In the Accord MGC, MCU services are provided through Meeting Rooms. For information about defining Meeting Room properties, see Appendix D, "Setting Meeting Room Properties" on page D-7.

---

➤ **To view or edit MCU Services**

1. Double-click an MCU Service node. The specific service's Properties dialog box appears.
2. Define the MCU Service properties according to your system and MCU specifications, or keep the default settings.
3. To implement the changes and proceed to another tab in the dialog box, click the appropriate tab.
4. To implement all the changes and close the dialog box, click **OK**.

The following subsections describe the MCU Service properties.

## General Properties

The **General** tab contains identity information of the new MCU Service.

**70 Properties (MCU Service)**

General | Bandwidth Control | Ad-hoc Conference | Services

Directory Number : 70

Description : 70

H.323 Address

Alias : 70 Type : E.164

See more addresses at the [Additional IDs page](#)

Network Address: 10. 0. 0. 42

OK Cancel Apply Help

*MCU Service - General Properties*

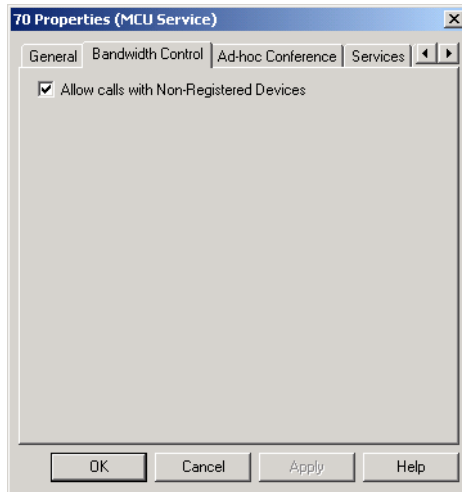
In the **General** Properties tab, the following properties appear:

<b>Directory Number</b>	Number to be dialed for using this service.
<b>Description</b>	Name of the service. This name will appear in the Main View after the login process is finished.
<i>H.323 Address</i>	
<b>Alias</b>	The MCU's alias as it is defined by its operating system.
<b>Type</b>	The type of address used by the MCU for registering with the 5700 VFA.
<b>Additional IDs page</b>	Click this link to view any additional IDs that have been configured for this MCU.
<b>Network Address</b>	IP address of the MCU.
	Changing the MCU's IP address must be done through the its configuration utility. The address cannot be changed from the 5700 VFA.



## Bandwidth Control Properties

In the **Bandwidth Control** tab, select **Allow calls with Non-registered Devices** to allow non-registered devices to participate in any multipoint videoconferences using this MCU service.



*MCU Service - Bandwidth Control Properties*

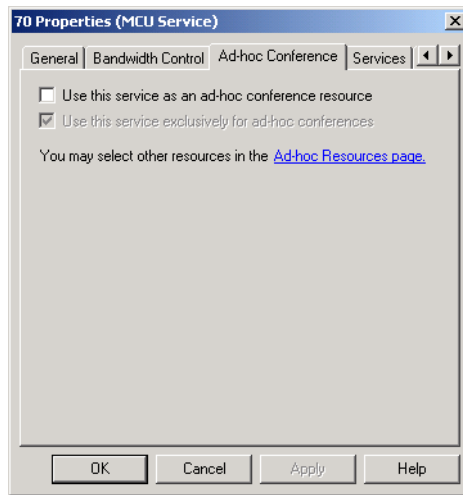
## Ad-Hoc Conference Properties

A point-to-point conference becomes an ad-hoc conference when additional end points are "invited" by one of the parties and they join the session. In the **Ad-hoc Conference** tab, you can make the selected MCU Service available for use in ad-hoc conferences. This availability may be in addition to basic multipoint videoconferencing or exclusive for ad-hoc conferences.

---

**NOTE** Expansion to ad-hoc videoconference is available only for licensed users of the Conference Control Option. If you want to add this option to your 5700 VFA, please contact your local Mitel Networks distributor.

---

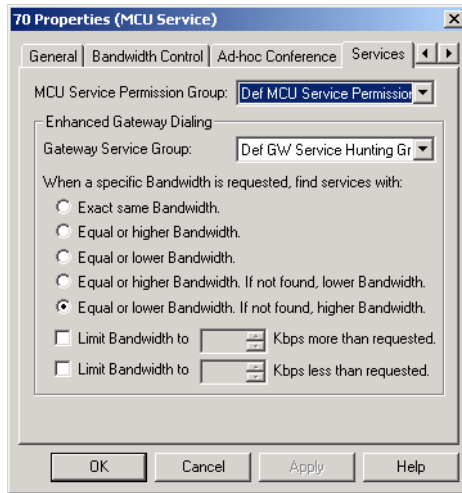


### *MCU Service - Ad-hoc Conference Properties*

- |  |   |
|--|---|
| <b>Use this service as an ad-hoc conference resource</b>   | Select to make this service available for use when expanding to an ad-hoc videoconference.  |
| <b>Use this service exclusively for ad-hoc conferences</b> | Select to make this service available only for use in ad-hoc videoconferences, and unavailable for point-to-point sessions.   |
| <b>Ad-hoc Resources page</b>                               | Click this link to open the 5700 VFA Ad-hoc Resources Properties, in which you can also select which MCU Services may be used for ad-hoc videoconferences (see “Ad-hoc Resources” on page D5-13). |

## Services Properties

In the **Services** tab, you can define bandwidth allocation policy for any MCU conferences or calls through a gateway in which this service is used.



### *MCU Service - Services Properties*

#### **MCU Service Permission Group**

Select the name of the MCU Service Permission group from which an MCU using this service can receive additional MCU services (see “MCU Service Permission Groups” on page D8-14).

For example, if more than one MCU is registered with the 5700 VFA, videoconferences among them can be created by bridging the MCUs. To initiate the connection, the MCU dials one of the services listed in its assigned permission group.

#### **Gateway Service Group**

Select the name of the gateway service hunting group from which an MCU using this service can receive gateway services. If the MCU dials the defined gateway access number (default is “9”), it may use any of the included services within that particular Service group.

The available options are all gateway service hunting groups that are listed in the Main View (see “Gateway Service Hunting Groups” on page D7-10).

Some calls through the gateway may specify a required bandwidth. The following options define how the 5700 VFA allocates bandwidth in this situation:

<b>Exact same bandwidth</b>	Provide a choice only among services that provide the exact bandwidth required.
<b>Equal or higher bandwidth</b>	Provide a choice only among services that provide the exact bandwidth required or more.
<b>Equal or lower bandwidth</b>	Provide a choice only among services that provide the exact bandwidth required or less.
<b>Equal or higher bandwidth - if not found, lower bandwidth</b>	Provide a choice among services that provide the exact bandwidth required or more. If none exist, then offer services allocating lower than required bandwidth.
<b>Equal or lower bandwidth - if not found, higher bandwidth</b>	Provide a choice among services that provide the exact bandwidth required or less. If none exist, then offer services allocating higher than required bandwidth.
<b>Limit bandwidth to ____ Kbps more (or less) than requested</b>	<p>Select the appropriate option to enable only a specific amount of deviation (higher or lower) from the requested bandwidth. From the appropriate list, choose the amount of deviation (in Kbps) allowed.</p> <p>For example, if you want to allow no more than an additional 128 Kbps, then choose <b>128</b> from the appropriate list.</p>

### LDAP Properties

The **LDAP** tab provides information about the MCU service's registration, if applicable, in an LDAP (Lightweight Directory Access Protocol) server. For information about nodes' LDAP Properties, see "LDAP Properties" on page D6-13.

## Additional ID Properties

In addition to its directory (E.164) number, an MCU service may have other addresses that may be used to dial it, such as additional E.164 addresses and/or H.323 Alias. In the **Additional ID** page, you may enter these, if applicable. For more information about adding Additional IDs, see “Additional IDs Properties” on page D6-14.

## 8.4 MCU Service Permission Groups

An MCU Service Permission group is a set of MCU services that may be used by specific nodes. Its purpose is to control the use of MCU resources among an organization's end points.

An MCU Service Permission group may consist of one service, multiple services, or all available services. It may also include combinations of services from more than one registered MCU. In addition, you can define the automatic addition of new MCU services to a specific permission group (see “Product Information Properties” on page D8-5).

By default, every registered end point is assigned to the default permission group. This may be changed when manually adding a new end point, or by editing the end point's properties (see “Services Properties” on page D6-10). An end point is only permitted to use those services listed in its assigned permission group. If it attempts to dial a service not listed in its group, the 5700 VFA rejects the call.



*MCU Service Permission Groups in the Administrator Window*

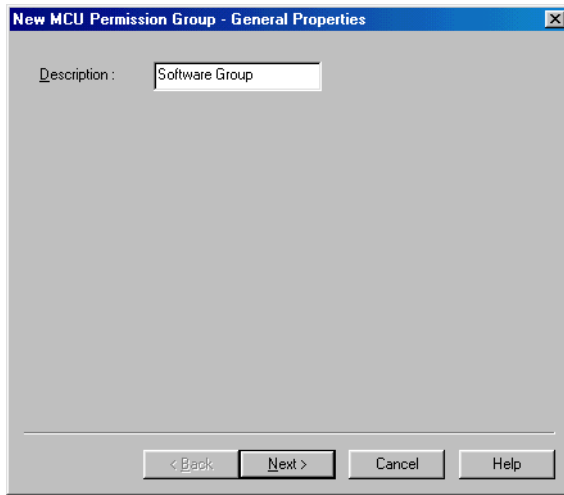
### ► To create an MCU Service Permission Group



1. Click the New MCU Permission Group button. The New MCU Permission Group dialog box appears.
2. Change properties according to your permission group requirements. To move to the next properties page, click **Next**. For explanations about the various properties, see pages 8-15 to 8-16.
3. Click **Finish**. In the Main View, the new group appears under the MCU Service Permission Group object.

## General Properties

In the **Description** box, type a name for the group. This name will appear on the system tree and in Services property dialog boxes.



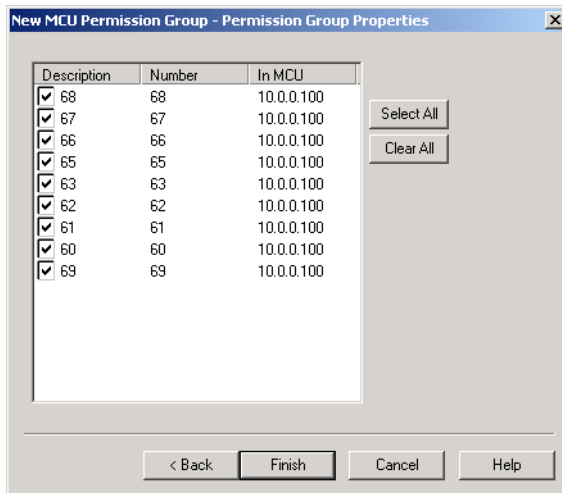
*New MCU Permission Group - General Properties*

### Permission Group Properties

The **Permission Group** Properties page includes all registered services from all registered MCUs.

Select any number of services from the list to be in the permission group. The group may also include combinations of services from more than one registered MCU.

- To place all services in the permission group, click **Select All**.
- To clear all the selections, click **Clear All**.



*New MCU Permission Group Properties*



## 9 **NEIGHBORING ZONES**

### 9.1 ***The 5700 VFA's Relationship with Neighboring Zones***

In addition to its own registered nodes, the 5700 VFA provides an organization with the ability to carry on videoconferences with nodes outside its administrative area. These nodes may be managed by other 5700 VFAs or third-party Gatekeepers, or unregistered with any management device.

The collections of nodes that 5700 VFAs and Gatekeepers register and manage are called *zones*. Multiple zones may be listed in the Administrator's system tree, where you may manage the communication between them and the local 5700 VFA.

Neighboring zones may be added automatically if calls are made between it and the local 5700 VFA zone, or added manually by you. Additional zones must be configured, according to the inter-zone management policy that you implement. After zones are added to the tree, you may manually add entries for end points, MCUs and Gateways that are registered in those zones.

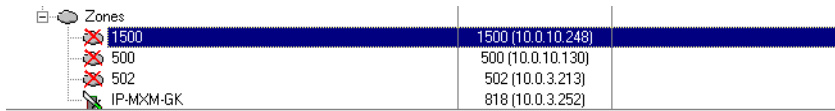
After zones are set up in the Administrator Main View, you can perform the following inter-zone management tasks (see "Inter-Zone Videoconferencing Management" on page 9-12):

- ☐ Start a point-to-point videoconference between two end points
- ☐ Setting up a dialing plan, which defines how to dial users in other zones
- ☐ Restrict the bandwidth allotment for inter-zone videoconferences
- ☐ Generate CDR records for inter-zone videoconference calls
- ☐ Restrict the use of exchange features such as Call Transfer and Call Forwarding.

## 9.2 Logging in New Zones

Inter-zone functions are available between the local 5700 VFA and zones known to it. Neighboring 5700 VFAs or Gatekeepers may be listed in the 5700 VFA automatically or manually.

Registered 5700 VFAs and Gatekeepers appear on the system tree under the Zones object. You can manually add any *neighbor node* (end point, MCU, or gateway) from a specific zone under that same zone in the Administrator. You can then initiate calls involving these nodes and manage their 5700 VFA configuration (see “Setting End Point 5700 VFA Properties” on page 6-3) in the same way as nodes registered with the local 5700 VFA (*MXM node*).



Zones	
1500	1500 (10.0.10.248)
500	500 (10.0.10.130)
502	502 (10.0.3.213)
IP-MXM-GK	818 (10.0.3.252)

*Listing of Neighboring 5700 VFAs and Gatekeepers*

### Adding Zones Automatically

The 5700 VFA System Properties include an option for adding zones in Open Mode. If this option is selected, the 5700 VFA will automatically add other 5700 VFA and Gatekeepers' zones only after one of the following occurs:

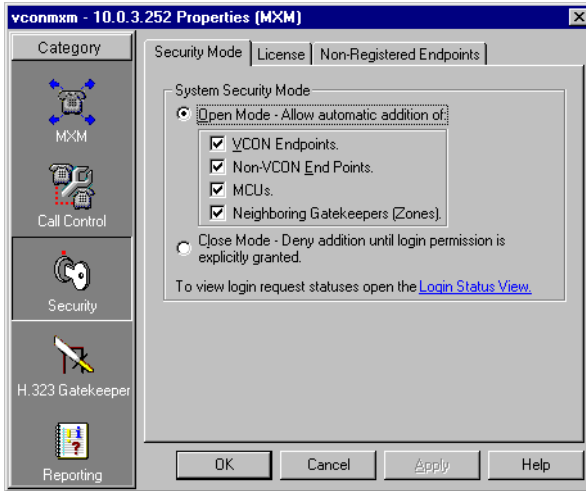
- ☐ The local 5700 VFA tries to dial using the Multicast search method.
- ☐ An incoming call from another zone arrives.

Discovered zones are listed in the Administrator (see the illustration above).

#### ➤ To add zones automatically

1. Right-click the 5700 VFA node, point to **Property** and then **Security**, and click **Security Mode**. The **Security Mode** tab opens.
2. Select the **Open Mode** and **Neighboring Gatekeepers (Zones)** options. The other 5700 VFAs and/or gatekeepers must also be in Open Mode.
3. Click the **H.323 Gatekeeper** icon on the left side of the dialog box. By default, the **Zone Settings** tab is open.

4. We recommend the Multicast search technique for searches of zones and neighboring nodes. Select **First Multicast Location Requests**, then in **Defined Zones** (default selection) or **Send Multicast Location Requests** (see “Zone Settings” on page 5-19).
5. Click **OK**.



*Setting Open Mode for Neighboring 5700 VFAs and Gatekeepers*

## Adding Zones Manually

If the 5700 VFA is in Closed Mode for zones, neighboring 5700 VFAs and Gatekeepers may only be added to the Administrator manually. In this process, you must define or confirm each node's properties.

### ➤ To add a zone manually



1. Click the New Zone button. The New Zone Wizard appears. The original property values are the default values defined in the Neighboring Gatekeeper template (see “Setting Up Templates” on page 4-28)
2. Change properties according to your network specifications, or keep the default settings. When you finish each page of the wizard, click **Next**. For explanations about the various properties, see “Setting Zone Properties” on page 9-4.
3. When you finish the last page, click **Finish**.

### 9.3 Setting Zone Properties

The main objective of defining zone properties is the definition of policies and the allocation of bandwidth for inter-zone videoconferences. This section describes these properties.

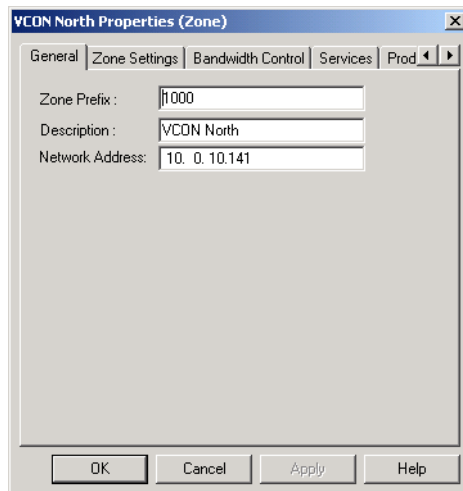
#### ► To define zone properties

1. Double-click a neighboring zone. The zone's Properties dialog box appears.
2. Define the zone properties according to your network's videoconferencing needs and specifications, or keep the default settings.
3. To implement the changes and proceed to another tab in the dialog box, click **Apply** and then the appropriate tab.
4. To implement all the changes and close the dialog box, click **OK**.

The following sections describe the zone properties.

#### General Properties

The **General** tab contains identity information of the new 5700 VFA or Gatekeeper.



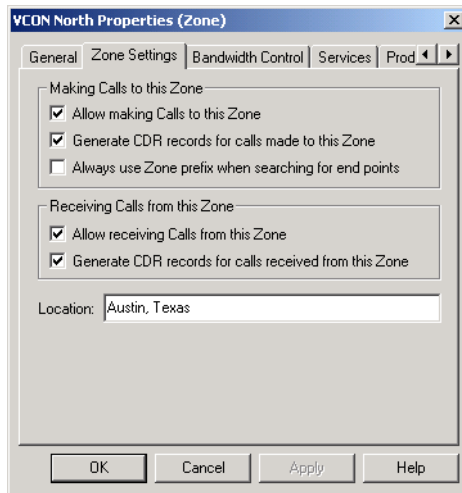
*Zone - General Properties*

In the **General Properties** tab, the following properties appear:

<b>Zone Prefix</b>	Directory number (E.164 number) assigned to the 5700 VFA or Gatekeeper. The zone prefix functions as an “area code,” which may be used by the 5700 VFA to dial nodes in the selected zone (to enable zone prefix dialing, see the next section, “Zone Settings”).
<b>Description</b>	Identifying name of the zone. This name will appear in the Main View.
<b>Network Address</b>	IP address of the zone’s 5700 VFA or Gatekeeper.

## Zone Settings

In the Zone Settings page, define the local 5700 VFA intercommunication relationship with the neighboring zone. This relationship includes permission to make and receive calls, generation of CDR reports, and the use of prefixes when dialing.



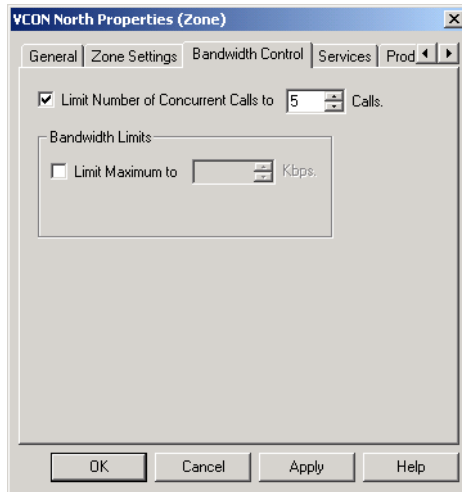
*Zone - Zone Settings Properties*

In the **Zone Settings** Properties tab, the following properties appear:

<b>Allow Making Calls to this Zone</b>	If selected, all 5700 VFA nodes may start videoconferences with neighbor nodes registered in this zone.
<b>Generate CDR records for calls made to this Zone</b>	If selected, all calls to neighbor nodes in this zone will be listed in a Call Details Record (CDR). For more details about CDRs, see <b>Getting Started&gt;Monitoring System Status&gt;Call Accounting</b> in the 5700 VFA online help.
<b>Always use Zone prefix when searching for end points</b>	Select this option to enable dialing to gatekeepers that require their prefix in the dialing syntax (non-Mitel Networks gatekeepers). To dial nodes managed by these gatekeepers, users must receive the appropriate prefixes from the system administrator or from the remote party.
<b>Allow receiving calls from this zone</b>	If selected, 5700 VFA nodes may receive videoconference calls from neighboring nodes registered in this zone.
<b>Generate CDR records for calls received from this Zone</b>	If selected, all calls from neighbor nodes in this zone will be listed in a Call Details Record (CDR). For more details about CDRs, see <b>Getting Started&gt;Monitoring System Status&gt;Call Accounting</b> in the 5700 VFA online help.
<b>Location</b>	Enter a general physical location of the zone's 5700 VFA or Gatekeeper and its end points

## Bandwidth Control Properties

In the **Bandwidth Control** page, you can define the available amount of bandwidth for all concurrent videoconferencing calls between the local zone and the neighboring zone.



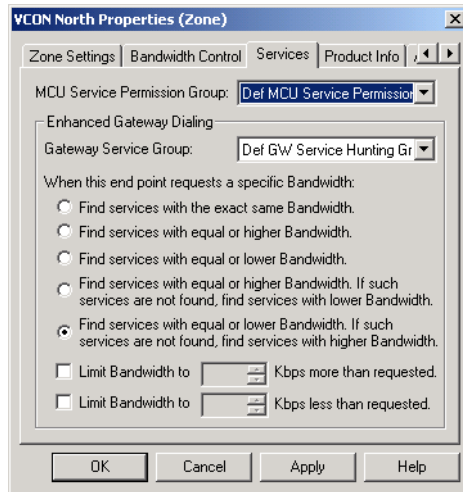
*Zone - Bandwidth Control Properties*

Set bandwidth control properties as follows:

- |  |   |
|--|---|
| <b>Limit Number of Concurrent Calls to</b> | Select the maximum number of calls between the two zones at the same time. The default setting is 5.  |
| <b>Limit Maximum to</b>                    | Select this option to define the total available bandwidth that the local 5700 VFA allocates to all calls to the neighboring zone. In the list, select the bandwidth. |

## Service Properties

In the **Services** tab, define how the local 5700 VFA allocates MCU and Gateway resources for incoming videoconferencing calls from the neighboring zone.



### *Zone - Service Properties*

#### **MCU Service Permission Group**

If you want to limit the usage of MCU services during incoming videoconferences from the neighboring zone, select an MCU Service Permission group. The available options are all MCU Service Permission groups that are listed in the current Administrator Main View (see “MCU Service Permission Groups” on page 8-14).

Select **No Group** to disable the selection of MCU services. As a result, nodes in the neighboring zone will not be able to participate in MCU-managed videoconferences that include nodes from the local 5700 VFA zone.



**Gateway Service Group**

Select the Gateway Service hunting group that defines the services that will be available for incoming videoconferences from the neighboring zone. If a neighbor node dials the defined gateway access number (default is “9”), it may use any of the included services within that particular Service group.

The available options are all Gateway Service hunting groups that are listed in the current Administrator Main View (see “Gateway Service Hunting Groups” on page 7-10).

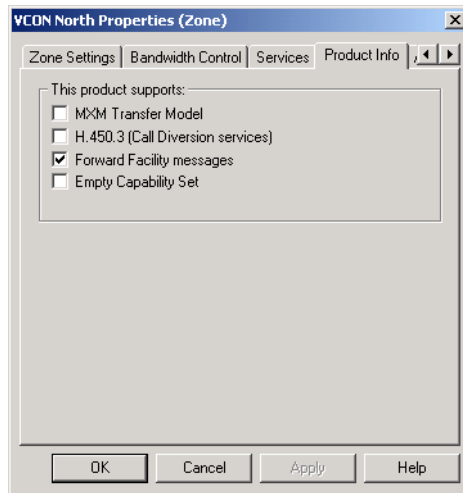
Some calls from the neighboring zone through a gateway may specify a required bandwidth. The following options define how the 5700 VFA allocates bandwidth in this situation:

<b>Exact same bandwidth</b>	Provide a choice only among services that provide the exact bandwidth required.
<b>Equal or higher bandwidth</b>	Provide a choice only among services that provide the exact bandwidth required or more.
<b>Equal or lower bandwidth</b>	Provide a choice only among services that provide the exact bandwidth required or less.
<b>Equal or higher bandwidth - if not found, lower bandwidth</b>	Provide a choice among services that provide the exact bandwidth required or more. If none exist, then offer services allocating lower than required bandwidth.
<b>Equal or lower bandwidth - if not found, higher bandwidth</b>	Provide a choice among services that provide the exact bandwidth required or less. If none exist, then offer services allocating higher than required bandwidth.
<b>Limit bandwidth to ____ Kbps more (or less) than requested</b>	Select the appropriate option to enable only a specific amount of deviation (higher or lower) from the requested bandwidth. From the appropriate list, choose the amount of deviation (in Kbps) allowed.

For example, if you want to allow no more than an additional 128 Kbps, then choose **128** from the appropriate list.

### Product Info Properties

In the **Product Info** tab, select the exchange functionalities that are supported by the neighboring zone's 5700 VFA or gatekeeper.



#### *Zone - Product Info Properties*

##### **5700 VFA**

##### **Transfer Model**

If selected, videoconferences between neighbor nodes and 5700 VFA nodes may be transferred to another end point

##### **H.450.3 (Call Diversion services)**

If selected, calls between the neighboring zone and the local 5700 VFA zone may be forwarded according to the capabilities of H.450.3. It provides additional information about forwarded calls than Forward Facility does, such as the original destination of the call.

##### **Forward Facility messages**

If selected, calls between the neighboring zone and the local 5700 VFA zone may be forwarded according to Forward Facility capabilities. A forwarded call does not provide information about the redirection.

---

**NOTE** If the neighboring zone supports both H.450.3 and Forward Facility, we recommend enabling H.450.3.

---

### Empty Capability Set

If selected, the local 5700 VFA will send calls to the neighboring zone without waiting to receive a capability set from the remote party. This selection also enables the joining of neighbor nodes in ad-hoc videoconferences.

## Additional IDs Properties

In addition to its zone prefix, a neighboring zone may have additional prefixes to which its nodes may be dialed, such as additional E.164 addresses and/or H.323 IDs (node name).

For more information about adding Additional IDs, see “Additional IDs Properties” on page 6-14.

## 9.4 Known Non-Registered End Points

There may be situations where end points will not register with any gatekeeper, but should still be available for videoconferencing with registered end points. In such a case, you can make the end point known to the 5700 VFA by listing it as a *non-registered end point*.

### Adding a Known Non-Registered End Point

A non-registered end point may be “discovered” if it is in a videoconference with an 5700 VFA node. In such a case, the non-registered end point appears on the system tree under the Non-registered Devices object during the duration of this call. The administrator may then permanently add the end point to the tree (depending on the system Non-registered Device Properties - see page 5-18).



*Non-registered End Point Appearing in Main View*

#### ► To add a non-registered node to the system tree

1. Right-click the node and then click **Make Permanent**. The New Permanent Non-registered Device Wizard appears.
2. Set the properties according to your system specifications. When you complete a page, click **Next** to advance to the next properties page). For explanations about the various properties, see “Setting End Point 5700 VFA Properties” on page 6-3.
3. Click **Finish** to exit the wizard.

### 9.5 Inter-Zone Videoconferencing Management

You can perform the following inter-zone management tasks:

- ☐ Setting up a dialing plan, which defines how the 5700 VFA starts point-to-point videoconferences between 5700 VFA nodes and neighbor nodes, or with a non-registered node.
- ☐ Restrict the bandwidth allotment for inter-zone videoconferences
- ☐ Restrict the use of exchange features such as Call Transfer and Call Forward.
- ☐ Sharing gateway resources with other zones.

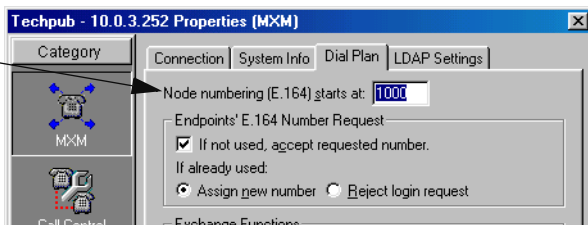
#### Setting Up Inter-Zone Dialing

If your organization contains more than one 5700 VFA or other gatekeepers, you likely want to provide the ability of end points to videoconference with nodes in the other zones, as well as to zones outside the organization. This section explains how to set up the relevant configurations to permit inter-zone videoconferencing.

To permit dialing between nodes in different zones, the 5700 VFAs and the relevant zones must have a specific configuration. Perform the following tasks:

1. Within your own organization, we recommend that you assign different directory numbering ranges in all 5700 VFAs. If identical directory numbers exist in different zones, zone prefixes must be added to numbers when dialing, and must be added to the node configurations (for more details, see “Dial Plan” on page 5-5).

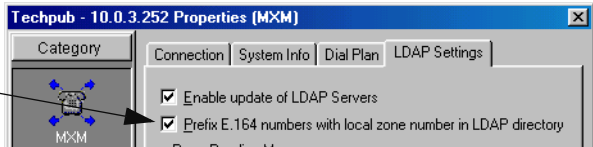
Set the Directory (node) Numbering range for registering 5700 VFA nodes.



*Setting a Directory Number Range for the 5700 VFA*

- If your organization is using an online directory (such as ILS or NDS), enable the zone prefix to be appended to each entry's configuration. If a node is moved to a different zone, the 5700 VFA also updates the prefix in the online directory (for more details, see "LDAP Settings" on page 5-9).

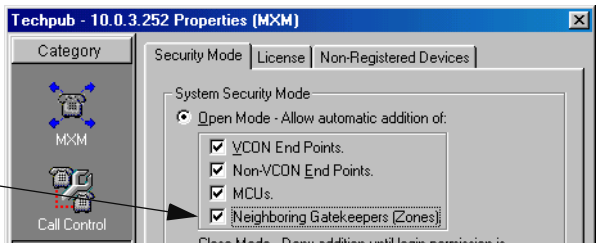
Enable the zone prefix to be appended to each entry's configuration in online directories.



*LDAP Settings Properties*

- All of the respective zones must be known to each other. If the 5700 VFA is set to Open Mode registration, any neighboring zones managed by 5700 VFAs and H.323 gatekeepers may be listed automatically in the Main View. If the 5700 VFA is set to Closed Mode registration, you have to add the neighboring 5700 VFAs and gatekeepers to the Main View manually (to set the 5700 VFA to Open or Closed Mode, see "Security Mode" on page 5-14).

Set Open Mode for Neighboring Gatekeepers (Zones)



*Open Mode for Adding Neighboring 5700 VFAs (MXMs) and Gatekeepers*

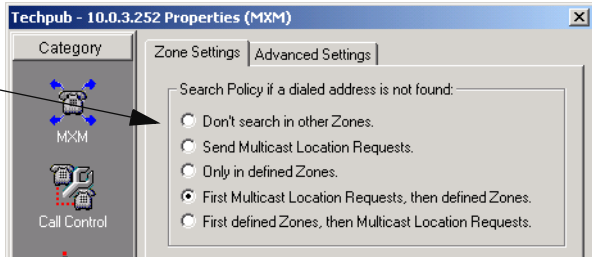
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**NOTE** Make sure that the zone prefixes (directory numbers) are listed identically in all known 5700 VFAs and gatekeepers.

---

- Inter-zone search for addresses must be enabled in the 5700 VFAs. You can set the 5700 VFAs to use either Multicast or Defined Zones searching or a combination of the two. See the figure on the next page (for more details, see the 5700 VFA "Zone Settings" on page 5-19).

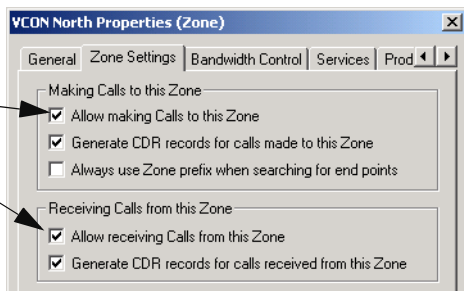
Select the method of searching for addresses in other zones



### *Selecting Address Search Method*

5. The ability to receive and send calls must be enabled in the Zone Settings of each relevant zone's properties (for more details, see the zone's "Zone Settings" on page 9-5).

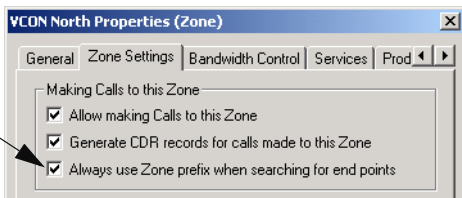
Allow calling to and receiving calls from the selected zone



### *Allow Videoconferences Between this Zone and the Local Zone*

6. To enable dialing to gatekeepers that require their prefix in the dialing syntax (non-Mitel Networks gatekeepers), select the **Always use Zone prefix when searching for end points** option in the Zone Settings of the zone. To dial nodes managed by these gatekeepers, users must receive the appropriate prefixes from the system administrator or from the remote party (for more details, see the zone's "Zone Settings" on page 9-5).

Select to allow local 5700 VFA nodes to call nodes managed by a non-VCON or Mitel Networks gatekeeper



### *Allow Videoconferences Between a Zone Managed by a non-VCON or Mitel Networks Gatekeeper and the Local Zone*

## Restricting Bandwidth Allotment

For each neighboring zone, you can restrict the amount of bandwidth that is available for all concurrent videoconferences between that zone and the local 5700 VFA. For individual nodes, you can also define a maximum bandwidth allotment.

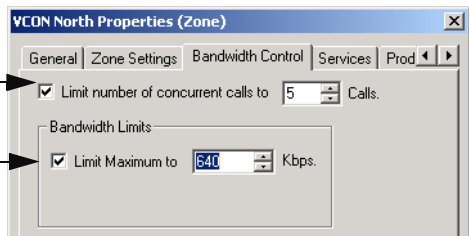
### ► To set bandwidth allotment for inter-zone calls

1. Double-click the neighboring zone and click the **Bandwidth Control** tab.  
-or-  
Right-click the neighboring zone, point to **Property** and then click **Bandwidth Control**.
2. In the Bandwidth Control page, select **Limit Maximum to** to define the total bandwidth that the local 5700 VFA allocates for all calls to the neighboring zone. In the list, select the bandwidth in Kbps.
3. Select **Limit Number of Concurrent Calls** to restrict the number of simultaneous calls allowed between the local 5700 VFA and the neighboring zone. From the list, choose the number of calls.
4. To implement the changes and close the dialog box, click **OK**.

For example, if you allocated 384 Kbps for all calls and there are four concurrent calls, a possible distribution of the available bandwidth for all calls would be 128, 128, 64 and 64 Kbps.

Number of simultaneous calls  
allowed between the local  
5700 VFA and the neighboring  
zone

Total bandwidth allocated for all  
calls to the neighboring zone



*Setting Bandwidth Allotment for Inter-zone Calls*

► To set bandwidth allotment for calls between the local 5700 VFA and a neighbor node

1. Double-click the neighbor node and click the **Bandwidth Control** tab.

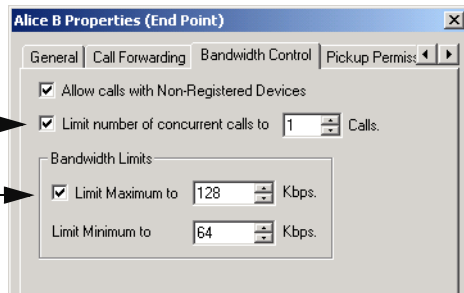
-or-

Right-click the neighbor node, point to **Property** and then click **Bandwidth Control**.

2. In the Bandwidth Control page, select **Limit Maximum to** to define the total bandwidth that the local 5700 VFA allocates for all concurrent calls to the neighbor node. In the list, select the bandwidth in kbps.
3. Select **Limit Number of Concurrent Calls** to restrict the number of simultaneous calls allowed between the local 5700 VFA and the neighbor node. From the list, choose the number of calls.
4. To implement the changes and close the dialog box, click **OK**.

umber of simultaneous calls  
llowed between the local  
700 VFA and the neighbor  
ode

Total bandwidth allocated for all  
calls between the local  
5700 VFA and the neighbor  
node



*Setting Bandwidth Allotment for Inter-zone Calls to a Neighbor Node*



## Restricting H.450 Exchange Functions

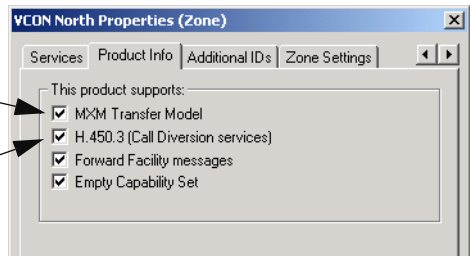
You can allow or forbid H.450 Exchange functions, such as Call Forwarding and Call Transfer, between the local 5700 VFA and the neighboring zone or node.

### ► To allow H.450 Exchange functions to the neighboring zone

1. Double-click the neighboring zone and then click the **Product Info** tab.  
-or-  
Right-click the neighboring zone, point to **Property** and then click **Product Info**.
2. In the Product Info page, select **5700 VFA Transfer Model** to allow Call Transfer to all nodes in the neighboring zone.
3. Select **H.450.3 (Call Diversion services)** to allow Call Forwarding to all nodes in the neighboring zone.
4. To implement the changes and close the dialog box, click **OK**.

Allow Call Transfer to all nodes  
in the neighboring zone

Allow Call Forwarding to all  
nodes in the neighboring zone



*Enabling H.450 Exchange Functions to a Neighboring Zone*

### ► To allow H.450 Exchange functions to a neighbor node

1. Double-click the neighbor node and then click the **Product Info** tab.

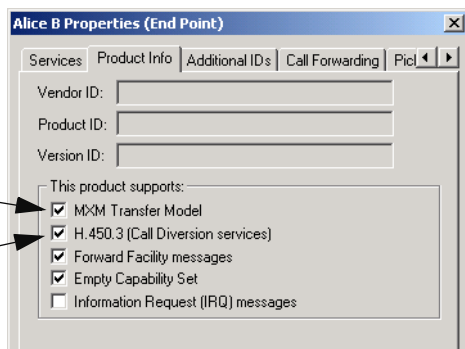
-or-

Right-click the neighbor node, point to **Property** and then click **Product Info**.

2. In the Product Info page, select **5700 VFA Transfer Model** to allow Call Transfer to the neighbor node only.
3. Select **H.450.3 (Call Diversion services)** to allow Call Forwarding to the neighbor node only.
4. To implement the changes and close the dialog box, click **OK**.

Allow Call Transfer to the neighbor node

Allow Call Forwarding to the neighbor node



*Enabling H.450 Exchange Functions to a Neighbor Node*

## Sharing Gateway Services with Other Zones

Gateway services from the local 5700 VFA may be provided to neighbor nodes. Also, you may provide gateway services from neighboring zones to 5700 VFA nodes.

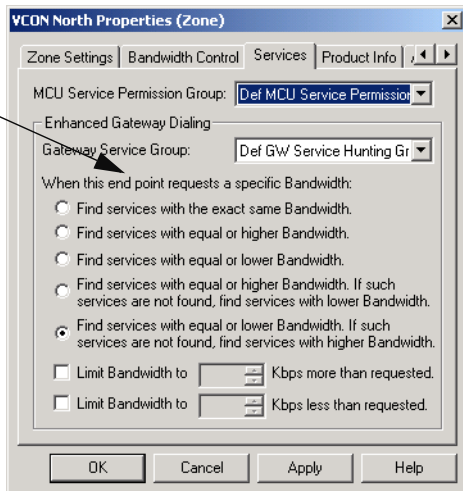
### Direct Gateway Service Dialing

This method may be used for providing neighbor nodes with gateway services that are registered in the local 5700 VFA. It is easy to set up but requires users to obtain the local 5700 VFA zone prefix and enter it while dialing.

#### ► To set up direct gateway service dialing

1. Right-click the neighboring zone, point to **Properties**, and then click **Services**. The **Services** tab appears.

Select a Gateway Service Hunting Group and bandwidth allocation policy.



2. Select a Gateway Service Hunting Group and bandwidth allocation policy (see page 9-9). To limit the gateway services available to neighbor nodes, you can even create a specific Gateway Service Hunting Group (see “Gateway Service Hunting Groups” on page 7-10).
3. Click **OK**.

To obtain the service, the neighbor node must dial:

**[Zone Prefix][Gateway Access Number][ISDN number of remote party]**

For example, **40093334444**, where

*400* is the prefix, *9* is the access number, and *3334444* is the ISDN number.

### Adding a Neighbor Gateway to the Local 5700 VFA

This method may be used for providing 5700 VFA nodes with gateway services that are registered in a neighboring zone. Listing a gateway and its services under its neighboring zone in the Main View offers the following advantages:

- ☐ Users do not need to obtain and add zone prefixes when they dial.
- ☐ The listed gateway services may be placed in Gateway Service Hunting Groups in the local 5700 VFA.

#### ► To add a neighbor gateway to the local 5700 VFA

1. Right-click the neighboring zone, point to **Add Node to Zone**, and then click **Add Gateway**. The New Gateway wizard appears.
2. Edit the gateway's properties according to its configuration and your network specifications (for details, see "Setting Gateway Properties" on page 7-4). Click **OK** to finish.
3. After adding the gateway, right-click the gateway and then click **Add Service**. The New Gateway Service wizard appears.
4. Edit the gateway service's properties according to its configuration and your network specifications (for details, see "Setting Gateway Service Properties" on page 7-8). Click **OK** to finish.
5. To add additional services, repeat step 4 as many times as necessary.

The neighbor gateway and its services are now listed in the local 5700 VFA and may be dialed by 5700 VFA nodes simply by entering the gateway access number and the remote party's ISDN number. The gateway's services are now available for inclusion in Gateway Service Hunting Groups (see "Gateway Service Hunting Groups" on page 7-10).



*Neighbor Gateway and Service*

## Sharing MCU Services with Other Zones

In a similar way as for Gateway services, MCU services from the local 5700 VFA may be provided to neighbor nodes. Also, you may provide MCU services from neighboring zones to 5700 VFA nodes.

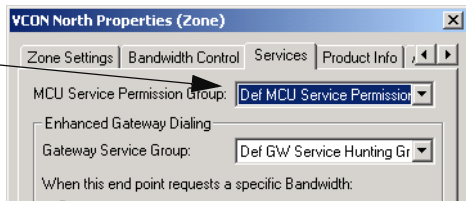
### Direct MCU Service Dialing

This method may be used for providing neighbor nodes with MCU services that are registered in the local 5700 VFA. It is easy to set up but requires users to obtain the local 5700 VFA zone prefix and enter it while dialing.

#### ► To set up direct MCU service dialing

1. Right-click the neighboring zone, point to **Properties**, and then click **Services**. The **Services** tab appears.

Select an MCU  
Service Permission  
Group



2. Select an MCU Service Permission Group. To limit the MCU services available to neighbor nodes, you can even create a specific Permission Group (see “MCU Service Permission Groups” on page 8-14).
3. Click **OK**.

To obtain the service, the neighbor node must dial:

***[Zone Prefix][MCU's directory number]***

For example, **4004444**, where

*400* is the prefix and *4444* is the MCU's directory number.

### Adding a Neighbor MCU to the Local 5700 VFA

This method may be used for providing 5700 VFA nodes with MCU services that are registered in a neighboring zone. Listing an MCU and its services under its neighboring zone in the Main View offers the following advantages:

- ☐ Users do not need to obtain and add zone prefixes when they dial.
- ☐ The listed MCU services may be placed in MCU Service Permission Groups in the local 5700 VFA.

#### ► To add a neighbor MCU to the local 5700 VFA

1. Right-click the neighboring zone, point to **Add Node to Zone**, and then click **Add MCU**. The New MCU wizard appears.
2. Edit the MCU's properties according to its configuration and your multipoint conferencing specifications (for details, see "Setting MCU Properties" on page 8-3). Click **OK** to finish.
3. After adding the MCU, right-click the MCU and then click **Add Service**. The New MCU Service wizard appears.
4. Edit the MCU service's properties according to its configuration and your multipoint conferencing specifications (for details, see "MCU Services" on page 8-7). Click **OK** to finish.
5. To add additional services, repeat step 4 as many times as necessary.

The neighbor MCU and its services are now listed in the local 5700 VFA and may be dialed by 5700 VFA nodes simply by dialing the MCU's directory number. The MCU's services are now available for inclusion in MCU Service Permission Groups (see "MCU Service Permission Groups" on page 8-14).



*Neighbor MCU and Service*

## **10 REGISTERING WITH LDAP DIRECTORIES**

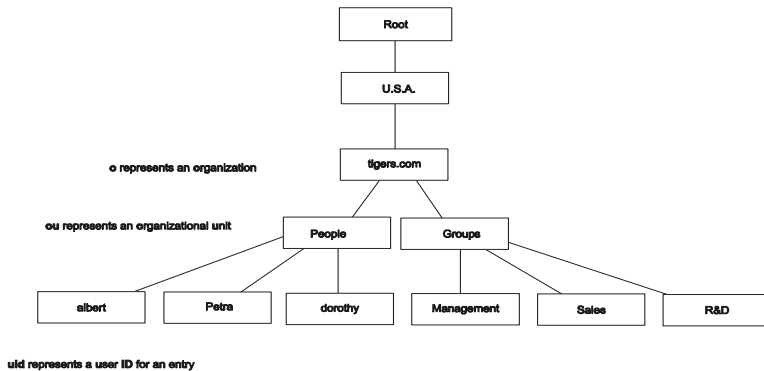
Online directories, such as Microsoft ILS Servers and Novell NDS, are lists of persons or network resources which include descriptive and contact information about all entries. They may be used to look up someone's contact information or to retrieve a list of e-mail addresses. They are accessible through an Internet connection. The 5700 VFA supports access to online directories.

Using the Lightweight Directory Access Protocol (LDAP), 5700 VFA end points may locate any other person or node on a public X.500-based network (X.500 is a standard for directory services in a network). In such a network, directory information is consolidated in central servers located throughout the network. These servers coordinate their directory information so that each maintains an updated, current mail client directory.

An LDAP directory is usually organized in a "tree" hierarchy with levels of objects (similar to the System tree in the Main Administrator window). Each object in the hierarchy must have a unique name. An LDAP directory tree may consist of the following levels:

- The "root" directory (the starting place or the source of the tree)
- Countries
- Organizations (such as a company or government ministry)
- Organizational units (such as divisions and departments)
- Individuals (such as persons, files, and shared resources such as printers).

For example, a sample hierarchy may look like this:



*Sample LDAP Directory Hierarchy*

An LDAP directory can be distributed among many servers. All of the LDAP servers may contain identical versions of the total directory which are synchronized periodically. An LDAP server that receives a request from a user may pass it to other servers as necessary, but ensures a single coordinated response for the user.

The 5700 VFA supports the following directory servers:

- Microsoft Internet Location Server (ILS)
- Microsoft Exchange Server
- Microsoft Window 2000 Active Directory
- Novell Directory Services (NDS)

This chapter provides the configuration settings required for the 5700 VFA to register with the respective LDAP directories. For information and instructions for installing and working with these applications, see the specific application's user guides.



## 10.1 *Registering the 5700 VFA with an ILS*

By supporting both Microsoft NetMeeting and Internet Location Server (ILS), the 5700 VFA can register with ILS servers, therefore providing its registered nodes with ILS services.

This section provides the required configuration information and values for registering the 5700 VFA and its users in the ILS.

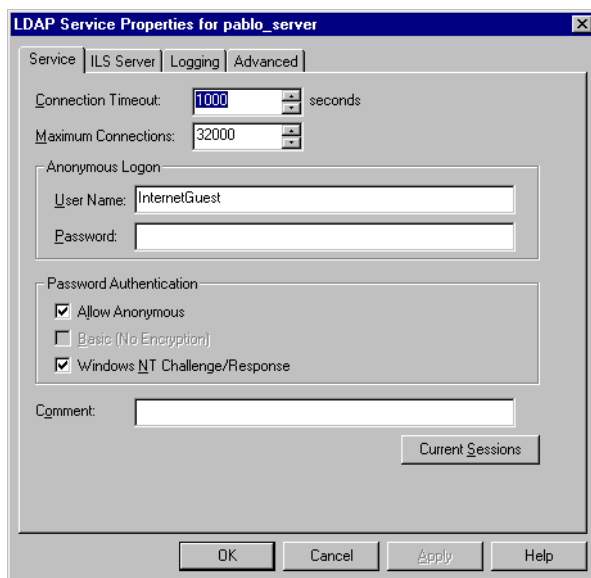
### ► To set up the 5700 VFA configuration in the ILS

1. Run the Microsoft Internet Information Server (IIS) application and open the Microsoft Management Console (MMC).
2. In the **Console** menu, click **Add\Remove Snap-in**. In the Add\Remove Snap-in dialog box, click **Microsoft Information Server** and then click **Add**. Click **OK** to confirm.
3. In the MMC, right-click **LDAP** and click **Properties**. The LDAP Service Properties appears. The following illustrations show suggested settings.

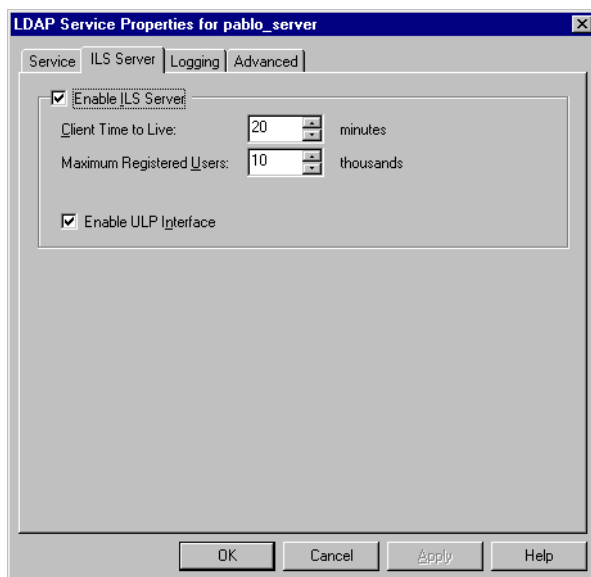
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**NOTE** You may enter your own choices as the Anonymous Login User Name and Password (optional).

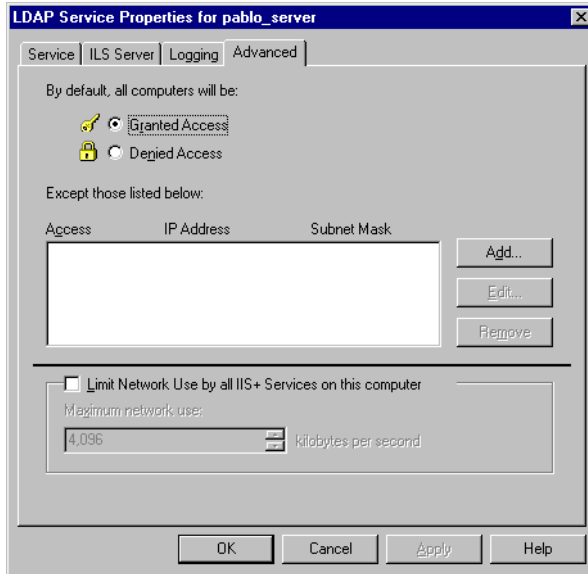
---



*Recommended LDAP Service Settings*



*Recommended LDAP ILS Server Settings*



#### *Recommended LDAP Advanced Settings*

4. To complete the configuration, you must perform the ILS Installation Verification.

In your web browser, enter the location **http://IP address of local host/ils**. Click the **Installation Verification** link.

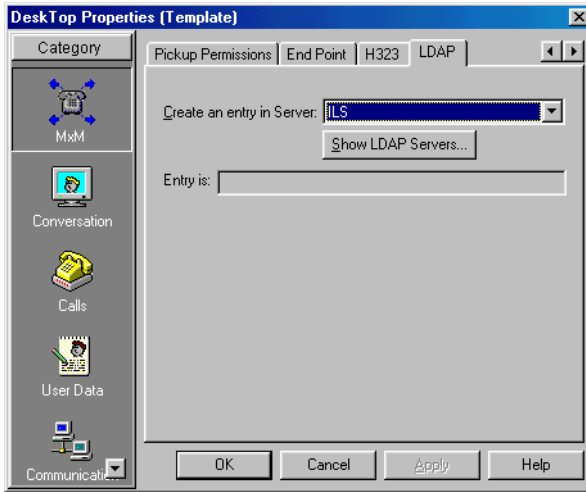
Follow the onscreen instructions to complete the verification process.

### **Setting Up the ILS Configuration in the 5700 VFA Administrator**

Finally, you have to set up the ILS configuration for the 5700 VFA in the 5700 VFA Administrator.

#### **► To set up the ILS configuration in the 5700 VFA**

1. In the Main view, expand the **Templates** group. Right-click **Desktop** (or other node type to be registered in the LDAP Server), point to **Property**, then **5700 VFA**, and then click **LDAP**. In the **Create an Entry in Server** list, choose **ILS** and then click **Apply**.



*Template's LDAP Properties*

- Click **Show LDAP Servers**. The LDAP Servers View appears.

Server Type	Server Name	Host Address	Host Port	Refresh Connection Interval	Default Directory	Domain	User	Password
ILS	ILS	Default_ILS_Server	389	0	o=Microsoft,objectClass=RTPers			
Exchange	Exchange	Default_Exchange_Ser	389	0	cn=MIM,cn=recipients,ou=Default	Default_Domain	Default_User	*****
NDS	NDS	Default_NDS_Server	389	0	ou=MIM,o=Vcon		Default_User	*****
Win2000	W2K	Default_W2K_Server	389	0	ou=Organization_Unit,do=Default		Default_User	*****
ILS	ILS2	Default_ILS2	389	0	o=Microsoft,objectClass=RTPers			
ILS	ILS3	Default_ILS3	389	0	o=Microsoft,objectClass=RTPers			
Exchange	Exchange2	Default_ExchangeServ	389	0	cn=MIM,cn=recipients,ou=Default	Default_Domain	Default_User	*****
Win2000	W2K-2	Default_W2K_Server_2	389	0	ou=Organization_Unit,do=Default		Default_User	*****
	Site Server ILS S	Default_Site_Server_IL	1002	0	objectClass=RTPerson			

*LDAP Servers View*

- Make sure that the following information appears in the table:
  - Host address - Exact host name or IP address of the LDAP server.
  - Port - **389**
  - Refresh Connection Interval - number of seconds. This value must be greater than **0** ("**0**" indicates that there is no connection with the LDAP server). The recommended value is **30** (seconds).
  - Default Directory - Folder as created in the ILS Server, reflecting the assigned organization ("o") and object class. For example, "**o=Microsoft, objectClass=RTPerson**".
  - Domain, User, Password - keep these spaces blank.

To edit an entry, click in the relevant cell(s), then delete and type.

## 10.2 *Registering the 5700 VFA with Microsoft Exchange Server*

For systems using the Microsoft Exchange Server 5.5 for their messaging and collaboration, the 5700 VFA is compatible. The Exchange Server sets up directories in the form of a tree-like hierarchy (see the illustration on page 10-2). For example, your company may be the top of the tree, the next level may be an organization unit such as the 5700 VFA, Sales or Administration, and the next level may be individual Recipients, such as individual end points.

This section provides the required configuration information and values for registering the 5700 VFA and its users in a Microsoft Exchange Server.

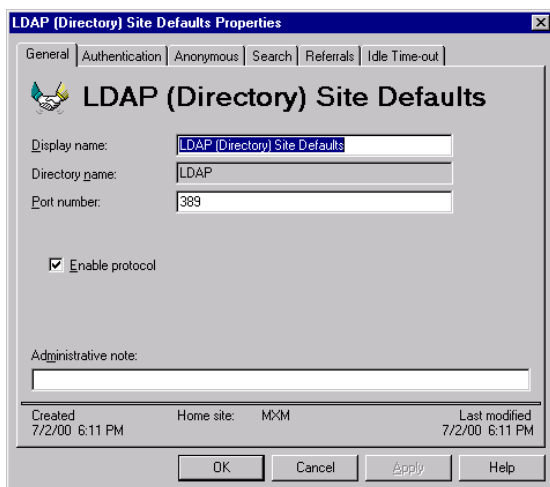
---

**NOTE** To be listed, a Recipient must already have an open account in the Microsoft Exchange Server.

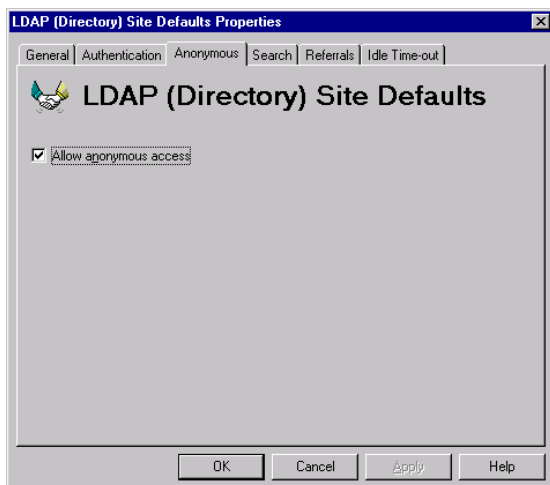
---

### ► To add 5700 VFA users to the Exchange Server

1. Run the Microsoft Exchange Administrator application and connect to a server.
2. In the Administrator tree, click the Organizational Unit (such as 5700 VFA) under which the users will be listed.
3. In the **File** menu, point to **New Other** and click **Recipients Container**. The Recipient's Properties dialog box appears.
4. In the **General** tab, enter a **Display Name** for the Recipient and the **Directory Name** under which the Recipient will appear on the tree.  
In the **Permissions** tab, the name of the 5700 VFA appears as the source of the Recipient's various conferencing privileges.
5. In the Administrator tree, expand the 5700 VFA's Configuration object. Click Protocol to display available protocol entries.
6. Double-click **LDAP (Directory) Site Defaults**. The following illustrations show suggested settings.



*LDAP Site Defaults General Properties*

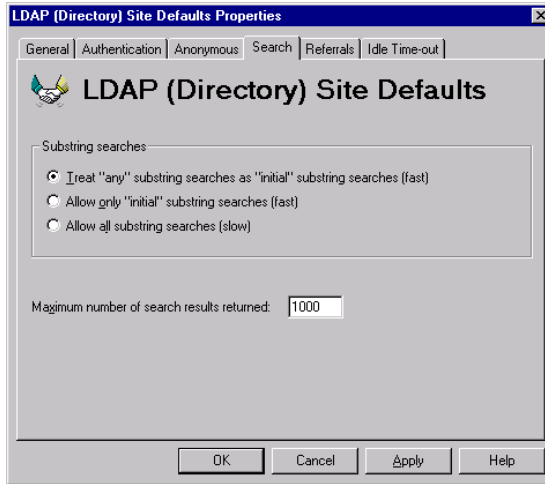


*LDAP Site Defaults Anonymous Properties*

---

**NOTE** Set your firewall to permit anonymous access to and from the directory.

---

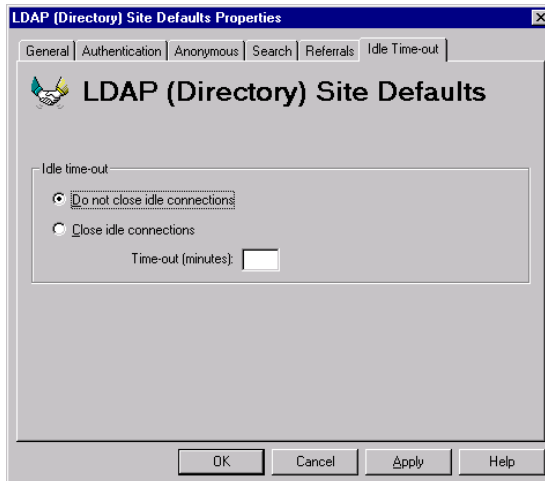


*LDAP Site Defaults Search Properties*

---

**NOTE** For the **Maximum Number of Search Results**, enter a value equaling (number of registered users + 10).

---



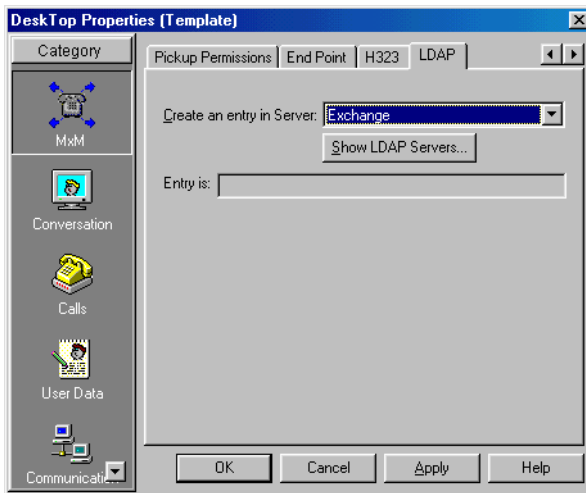
*LDAP Site Defaults Idle Timeout Properties*

## Setting Up the Exchange Server Configuration in the 5700 VFA Administrator

Finally, you have to set up the Exchange Server configuration for the 5700 VFA in the 5700 VFA Administrator.

### ► To set up the Exchange Server configuration in the 5700 VFA

1. In the Main view, expand the **Templates** group. Right-click **Desktop** (or other node type to be registered in the LDAP Server), point to **Property**, then **5700 VFA**, and then click **LDAP**. In the **Create an Entry in Server** list, choose **Exchange** and then click **Apply**.



*Template's LDAP Properties*

2. Click **Show LDAP Servers**. The LDAP Servers View appears.

Server Type	Server Name	Host Address	Host Port	Refresh Connection Interval	Default Directory	Domain	User	Password
ILS	ILS	Default_ILS_Server	389	0	o=Microsoft,objectClass=RTPers			
Exchange	Exchange	Default_Exchange_Ser	389	0	cn=MIM,cn=recipients,ou=Default	Default_Domain	Default_User	*****
NDS	NDS	Default_NDS_Server	389	0	ou=MIM,ou=vcon		Default_User	*****
Win2000	W2K	Default_W2K_Server	389	0	ou=Organization_Unit,do=Default		Default_User	*****
ILS	ILS2	Default_ILS2	389	0	o=Microsoft,objectClass=RTPers			
ILS	ILS3	Default_ILS3	389	0	o=Microsoft,objectClass=RTPers			
Exchange	Exchange2	Default_ExchangeServ	389	0	cn=MIM,cn=recipients,ou=Default	Default_Domain	Default_User	*****
Win2000	W2K-2	Default_W2K_Server_2	389	0	ou=Organization_Unit,do=Default		Default_User	*****
	Site Server ILS S	Default_Site_Server_IL	1002	0	objectClass=RTPerson			

*LDAP Servers View*



3. Make sure that the following information appears in the table:
    - Host address - Exact host name or IP address of the LDAP server.
    - Port - **389**
    - Refresh Connection Interval - number of seconds. This value must be greater than **0** ("**0**" indicates that there is no connection with the LDAP server). The recommended value is **30** (seconds).
    - Default Directory - Folder as created in the Exchange Server, reflecting the assigned organization ("o"), organizational unit ("ou") and additional levels in the hierarchy ("cn", or common name). For example, "**cn=recipients, ou=Site\_Name, o=Default\_Organization\_Name**".
    - Domain - Domain of the Exchange Server.
    - User - Valid user in the Exchange Server domain, with access rights to its 5700 VFA default directory
    - Password - Password as defined in the Exchange Server.
- To edit an entry, click in the relevant cell(s), then delete and type.

### **10.3 *Registering the 5700 VFA with Windows 2000 Active Directories***

The 5700 VFA supports Microsoft Windows 2000 Active Directories, which sets up directories in schemas. The schemas are made up of sublevels called classes. Each class is made up of uniquely named attributes.

In the Active Directories Console, you must expand its schema by creating a new class titled “5700 VFA Node” and then create new attributes for the 5700 VFA with specific names.

This section provides the required configuration information, exact attribute names, and values for registering the 5700 VFA and its users in an Active Directories Server. To perform the tasks, you must open the Active Directories Console. Then, follow the series of procedures in this section.

#### **Adding a User with Full Configuration Rights**

To extend the schema, you have to give full control (read and write permissions) to a user from the Schema Admin group.

Then, add a new Active Directory schema snap-in.

These tasks are basic Active Directories functions. If necessary, refer to the Active Directories documentation for instructions.

## Adding the 5700 VFA Attributes

You have to add specific attributes, or characteristics, for 5700 VFA objects to the snap-in.

### ➤ To add 5700 VFA attributes to the snap-in

1. In the **Active Directory Schema** snap-in on the left side of the Active Directories Console, right-click the **Attributes** folder and then click **Create Attribute**.

### *Creating New 5700 VFA (MXM) Attributes*

2. In the Create New Attribute dialog box, type identical names in the **Common Name** and the **LDAP Display Name** boxes.

In the **Unique X500 Object ID** box, type the OID of the attribute.

---

**NOTE** The table following this procedure contains the required attribute names and their respective OIDs. Enter them as they appear in the table.

---

3. In the **Syntax** list, select **Case Insensitive String**.
4. Click **OK**.

5. Repeat this procedure for all the attributes in the following table.

Attribute Name	OID
MXMTelephonyStateDescription	1.2.840.113556.1.8000.35.1.10.2
MXMUserType	1.2.840.113556.1.8000.35.1.10.3
MXMBChannelNum1	1.2.840.113556.1.8000.35.1.10.4
MXMBChannelNum2	1.2.840.113556.1.8000.35.1.10.5
MXMBChannelNum3	1.2.840.113556.1.8000.35.1.10.6
MXMBChannelNum4	1.2.840.113556.1.8000.35.1.10.7
MXMBChannelNum5	1.2.840.113556.1.8000.35.1.10.8
MXMBChannelNum6	1.2.840.113556.1.8000.35.1.10.9
MXMRestricted56k	1.2.840.113556.1.8000.35.1.10.10
MXMVideoSupport	1.2.840.113556.1.8000.35.1.10.11
MXMAudioSupport	1.2.840.113556.1.8000.35.1.10.12
MXMInCall	1.2.840.113556.1.8000.35.1.10.13
MXMH323Alias	1.2.840.113556.1.8000.35.1.10.14
MXMDeskTopUserDataNotes	1.2.840.113556.1.8000.35.1.10.15

## Adding the 5700 VFA Node Class

You must now create an 5700 VFA MXMNode class, to which you will later add the attributes you created in the previous section.

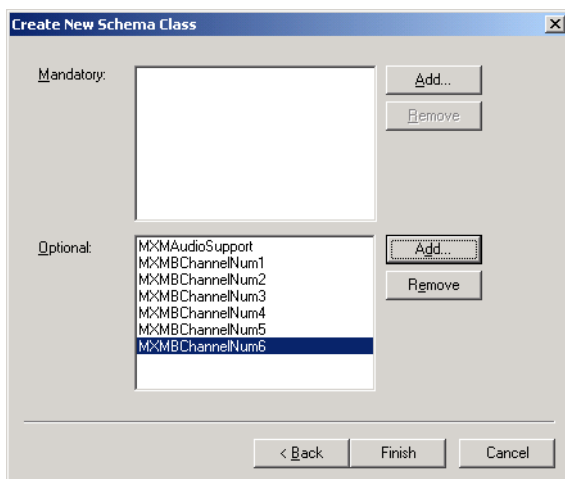
### ➤ To create the 5700 VFA Node class

1. In the **Active Directory Schema** snap-in on the left side of the Active Directories Console, right-click the **Classes** folder and then click **Create Class**.

The screenshot shows the 'Create New Schema Class' dialog box. It has two main sections: 'Identification' and 'Inheritance and Type'. In the 'Identification' section, the 'Common Name' and 'LDAP Display Name' fields both contain 'MXMNode'. The 'Unique X500 Object ID' field contains '1.2.840.113556.1.8000.35.1.10.1'. In the 'Inheritance and Type' section, the 'Parent Class' dropdown is set to 'organizationalPerson' and the 'Class Type' dropdown is set to 'Structural'. At the bottom of the dialog are three buttons: '< Back', 'Next >', and 'Cancel'.

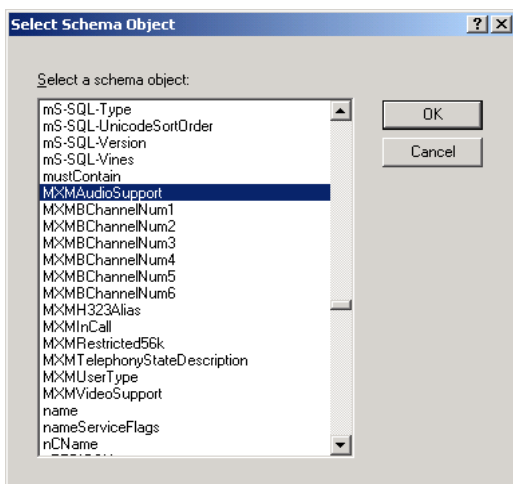
### *Creating the MXMNode Class*

2. In the Create New Schema Class wizard, type **MXMNode** in the **Common Name** and the **LDAP Display Name** boxes.
3. In the **Unique X500 Object ID** box, type **1.2.840.113556.1.8000.35.1.10.1** as the OID of the attribute.
4. In the **Parent Class** box, enter **organizationalPerson**.
5. In the **Class Type** list, select **Structural**.
6. Click **Next**.



*Adding 5700 VFA Attributes to MXMNode Class*

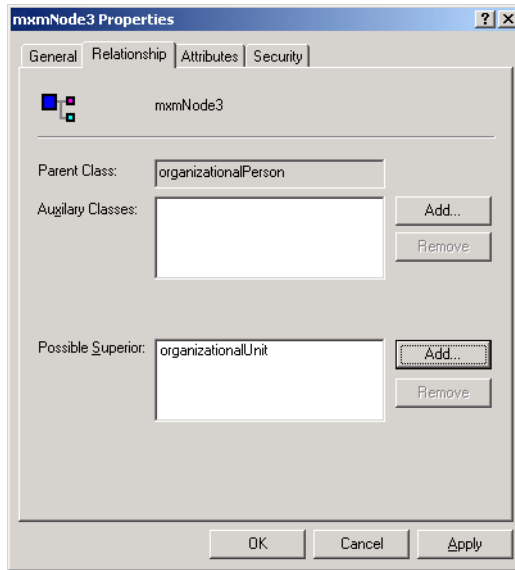
7. Next to the **Optional** list, click **Add**.



*Selecting 5700 VFA Attributes for the MXMNode Class*

8. In the Select Schema Object dialog box, select all the new MXM attributes and click **OK**.

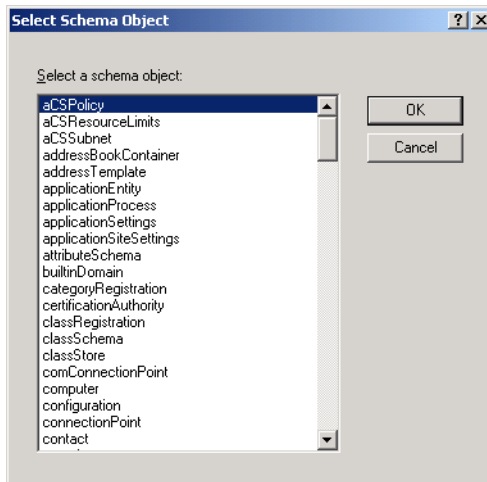
9. Right-click the **MXMNode** Class object on the left side of the Active Directories Console, and then click **Properties**. In the Properties dialog box, click the **Relationship** tab.



*MXMNode Class Relationship*

10. Opposite the **Possible Superior** box, click **Add**.

11. In the Select Schema Object dialog box, select an Organizational Unit and then click **OK**.



*Selecting an Organizational Unit for the MXMNode Class*

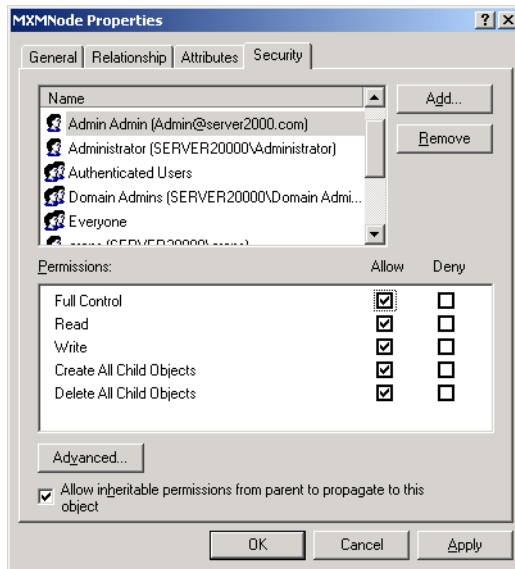
The MXMNode class is now contained inside the selected Organizational Unit.



## Granting Full Control Permissions to Users for the Class

In addition to the administrator (you), select at least one of your 5700 VFA users to have full control (read and write properties) permission in the MXMNode class.

1. Right-click the **MXMNode** Class object on the left side of the Active Directories Console, and then click **Properties**. In the Properties dialog box, click the **Security** tab.
2. In the Names list, select a 5700 VFA user and then select **Full Control** in the **Allow** column. Click **OK**.



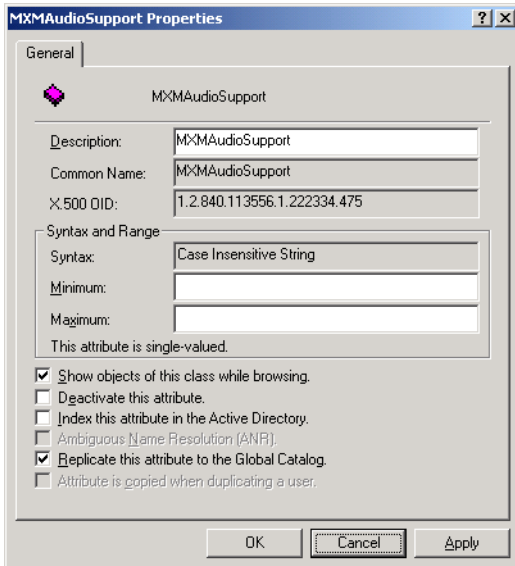
*Granting Full Control Privileges to a 5700 VFA User*

## Setting the Properties of the 5700 VFA Attributes

In this procedure, you must assign specific properties to all the 5700 VFA attributes.

### ► To set the properties of the 5700 VFA attributes

1. In the **Attributes** folder, right-click an MXM attribute and then click **Properties**.



*Setting 5700 VFA (MXM) Attribute Properties*

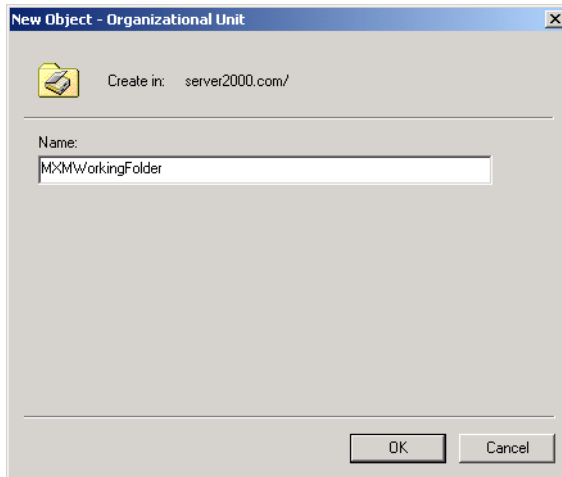
2. In the **Description** box, enter the identical name of the attribute.
3. Select the following options:
  - **Show objects of this class while browsing**
  - **Replicate this attribute to the Global Catalog**
4. Click **OK**.

## Creating an Organizational Unit for Your 5700 VFA

At this time, create a new Organizational Unit which will be your 5700 VFA's working folder in the LDAP server.

### ► To create your 5700 VFA's Organizational Unit

1. Expand the **Active Directory Users and Computers** snap-in on the left side of the Active Directories Console. Right-click the **LDAP Server** object, point to **New** and then click **Organizational Unit**.



*Creating the 5700 VFA (MXM) Organizational Unit*

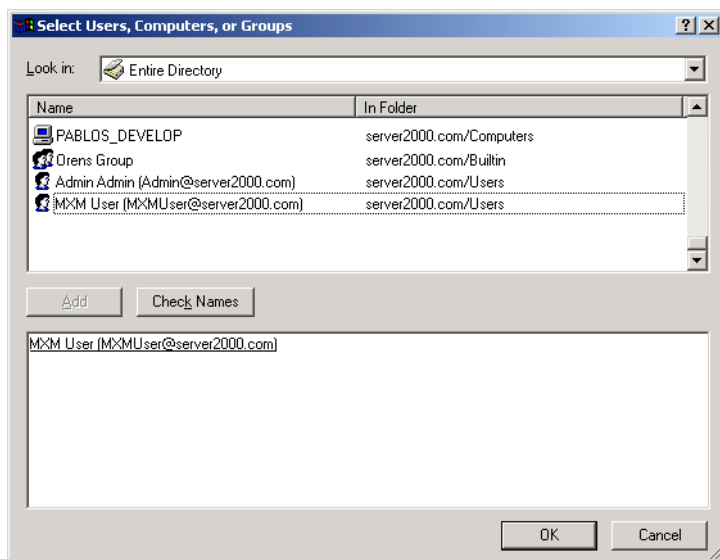
2. In the **Name** box, type **MXMWorkingFolder**.
3. Click **OK**.

## Giving Permissions to 5700 VFA Users

To provide 5700 VFA users with LDAP directory services, you have to give them “read” permission. In addition, you have to give one user full control permission (read and write).

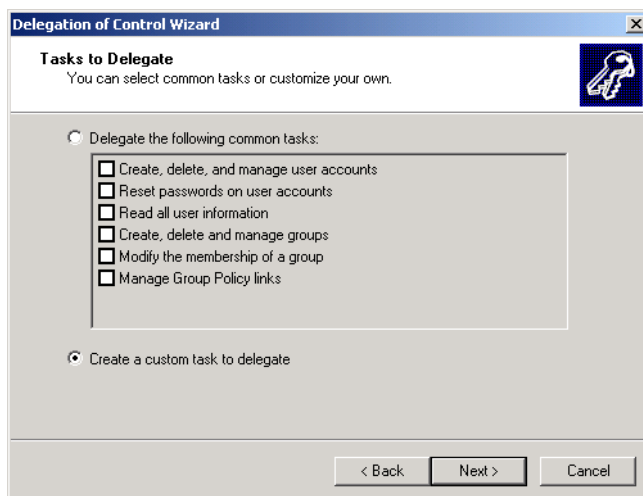
1. Select the **Active Directory Users and Computers** snap-in on the left side of the Active Directories Console. In the **View** menu, click **Advanced Features**.
2. Right-click the MXMWorkingFolder object and then click **Delegate Control**. The Delegate Control wizard appears.

3. Select all the 5700 VFA users in the list and click **Add**. Click **OK**.



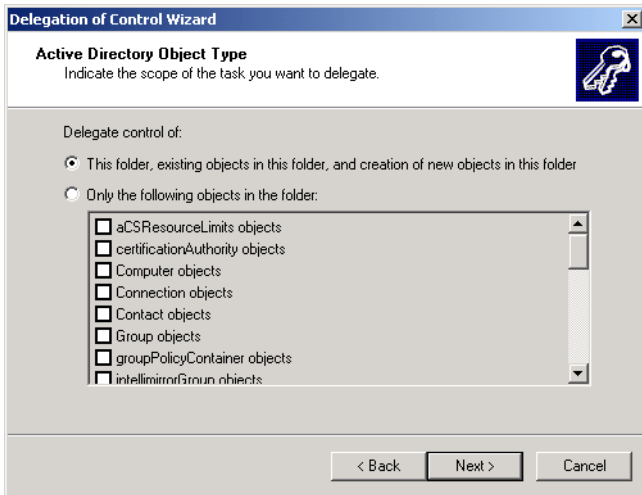
*Selecting 5700 VFA (MXM) Users*

4. Select **Create a custom task to delegate** and then click **Next**.



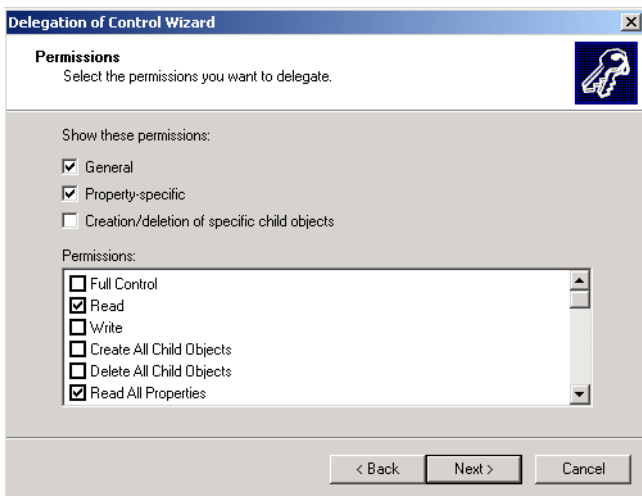
*Creating a Custom Task to Delegate*

5. Select **This folder, existing objects in this folder, and creation of new objects in this folder** and then click **Next**.



*Selecting All Objects in the Current Folder*

6. Select the **Read** permission for all the users and then click **Next**.

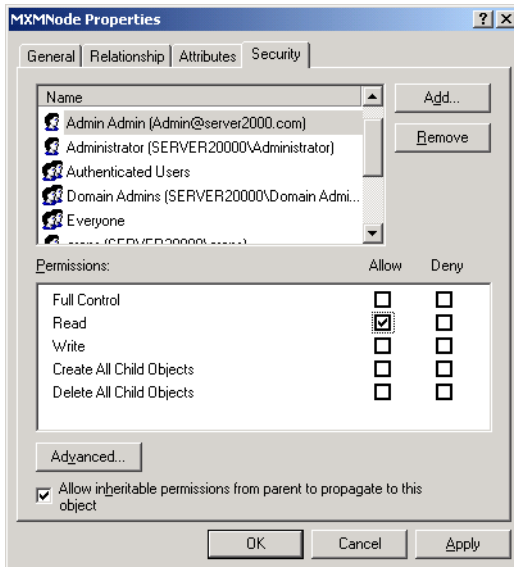


*Delegating Read Permission to the 5700 VFA (MXM) Users*

7. Click **Finish**.

8. Right-click the **MXMNode** Class object on the left side of the Active Directories Console, and then click **Properties**. In the Properties dialog box, click **Security**.

In the Names list, select the 5700 VFA users and then select **Read** in the **Allow** column. Click **Apply**.



### *Granting Read Privileges to 5700 VFA (MXM) Users*

9. In the Names list, select one 5700 VFA user to receive full read and write permissions. Select **Full Control** in the **Allow** column. Click **OK**.

## Setting Up the LDAP Configuration in the 5700 VFA Administrator

Finally, you have to set up the LDAP Server configuration for the 5700 VFA in the 5700 VFA Administrator.

### ➤ To set up the LDAP Configuration of the 5700 VFA



1. In the 5700 VFA Administrator, click the **LDAP Servers View** button.

Server Type	Server Name	Host Address	Host Port	Refresh Connection Interval	Default Directory	Domain	User	Password
ILS	ILS	Default_ILS_Server	389	0	o=Microsoft,objectClass=RTPers			
Exchange	Exchange	Default_Exchange_Ser	389	0	cn=MXM,ou=recipients,ou=Default	Default_Domain	Default_User	*****
NDS	NDS	Default_NDS_Server	389	0	ou=MXM,ou=Vbon		Default_User	*****
Win2000	W2K	Default_W2K_Server	389	0	ou=Organization_Unit,do=Default		Default_User	*****
ILS	ILS2	Default_ILS2	389	0	o=Microsoft,objectClass=RTPers			
ILS	ILS3	Default_ILS3	389	0	o=Microsoft,objectClass=RTPers			
Exchange	Exchange2	Default_ExchangeServ	389	0	cn=MXM,ou=recipients,ou=Default	Default_Domain	Default_User	*****
Win2000	W2K-2	Default_W2K_Server_2	389	0	ou=Organization_Unit,do=Default		Default_User	*****
	Site Server ILS S	Default_Site_Server_IL	1002	0	objectClass=RTPerson			

### *LDAP Servers View*

2. Make sure that the following information appears in the table in the W2K row:
  - Host address - Exact host name or IP address of the LDAP server.
  - Port - **389**
  - Refresh Connection Interval - number of seconds. This value must be greater than 0 (“0” indicates that there is no connection with the LDAP server). The recommended value is **30** (seconds).
  - Default Directory - Path as created in the Active Directory tree, reflecting the assigned organizational unit (“ou”) and domain controls. For example, “**ou=MXMWorkingFolder,dc=servername,dc=com**”.
  - Domain - keep this space blank.
  - User - Valid user in the Active Directories domain, with full control rights to the **MXMWorkingFolder** folder. For example, “**su,cn=users,dc=server\_name,dc=com**”.
  - Password - Password for this user as defined in the Active Directories application.

To edit an entry, click in the relevant cell(s), then delete and type.

### **10.4 *Registering the 5700 VFA with Novell Directory Services (NDS)***

The 5700 VFA is compatible with Novell NDS® scalable LDAP directory services. The NDS sets up directories in schemas and hierarchies.

NDS hierarchies are made up of sublevels called classes. Each class is made up of uniquely named objects.

We recommend that you register your 5700 VFA and its registered users either during NDS installation or while the 5700 VFA is shut down. You must expand its schema by creating a new class titled “MXMNode” and then create new attributes for the 5700 VFA with specific names.

This section provides the required configuration information, exact attribute names, and values for registering the 5700 VFA and its users in an NDS LDAP Server. Follow the series of procedures.

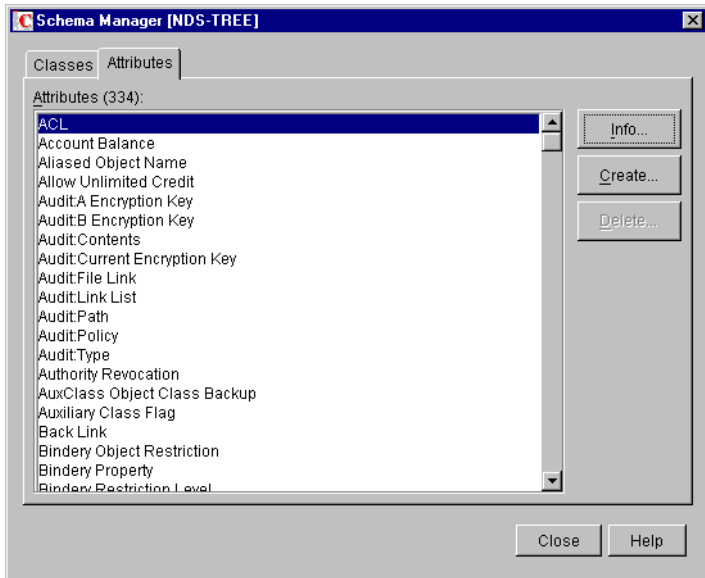


## Creating 5700 VFA Attributes

First, you have to add specific attributes, or characteristics, for 5700 VFA objects.

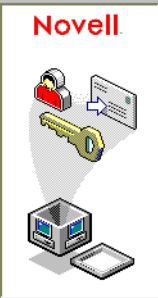
### ► To create 5700 VFA attributes

1. Run the NDS management application.
2. In the **Object** menu, click **Schema Manager**.
3. In the Schema Manager, click **Attributes**.



*Schema Manager*

4. To make a new attribute, click **Create**. The Create Attribute wizard appears.
5. In the **Attribute Name** box, type the exact name of the attribute and click **Next**.



**Create Attribute**

Enter the name of the new attribute.

Attribute name:

ASN1 ID:

To continue, click Next.

< Back   Next >   Cancel   Finish   Help

### *Entering Attribute Name*

6. In the **Syntax** List, select a value that describes the way that item may be written or requested in the directory service. For working with the 5700 VFA, select **Case Ignore String** and click **Next**.



**Create Attribute**

Select the syntax for the new attribute.

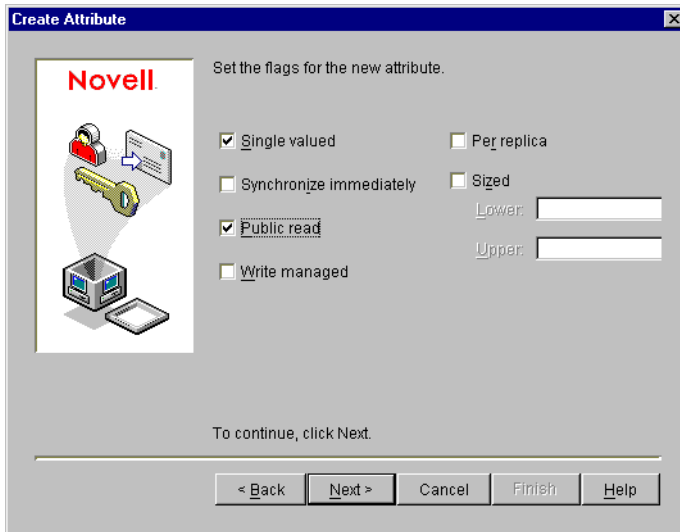
Syntax:

To continue, click Next.

< Back   Next >   Cancel   Finish   Help

### *Selecting a Syntax*

7. As flags, select **Single valued** and **Public read**. Click **Next**.



### *Selecting Flags*

8. Click **Next** until the last page of the wizard, keeping the default values for the new attribute. In the last page, click **Finish**.
9. Repeat steps 3 - 8, setting identical properties as specified, for the following attribute names.

<b>MXMIPAddress</b>	<b>MXMBChannelNum2</b>	<b>MXMRestricted56k</b>
<b>MXMTelephonyState Description</b>	<b>MXMBChannelNum3</b>	<b>MXMVideoSupport</b>
<b>MXMUserType</b>	<b>MXMBChannelNum4</b>	<b>MXMAudioSupport</b>
<b>MXMNotes</b>	<b>MXMBChannelNum5</b>	<b>MXMInCall</b>
<b>MXMBChannelNum1</b>	<b>MXMBChannelNum6</b>	

### Creating the 5700 VFA MXMNode Class

You must now create an MXMNode class based on the default super class named User. Attribute flags and rules will be inherited from the super class.



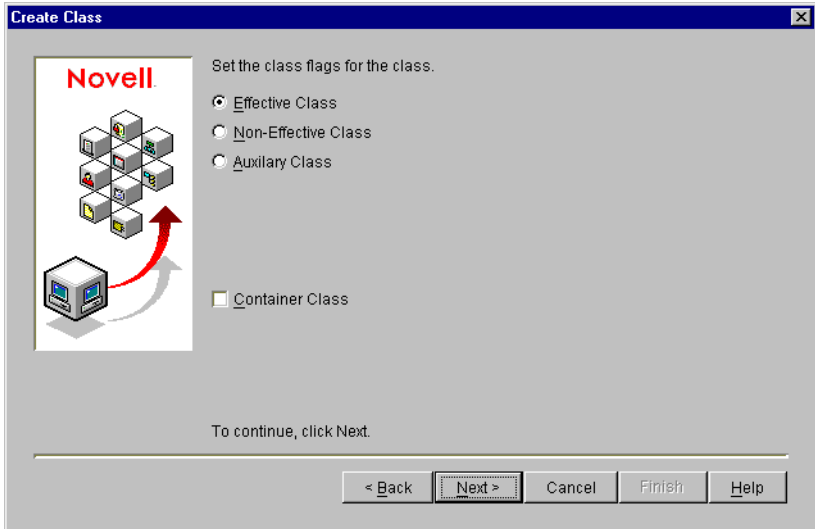
**CAUTION** Do not make changes to the NDS default schemas. Otherwise, the LDAP functions of the 5700 VFA may be affected.

#### ► To create the MXMNode class

1. In the **Object** menu, click **Schema Manager**. Click **Create** to open the Create Class wizard.
2. In the **Class Name** box, type **MXMNode** as the exact name of the class and click **Next**.

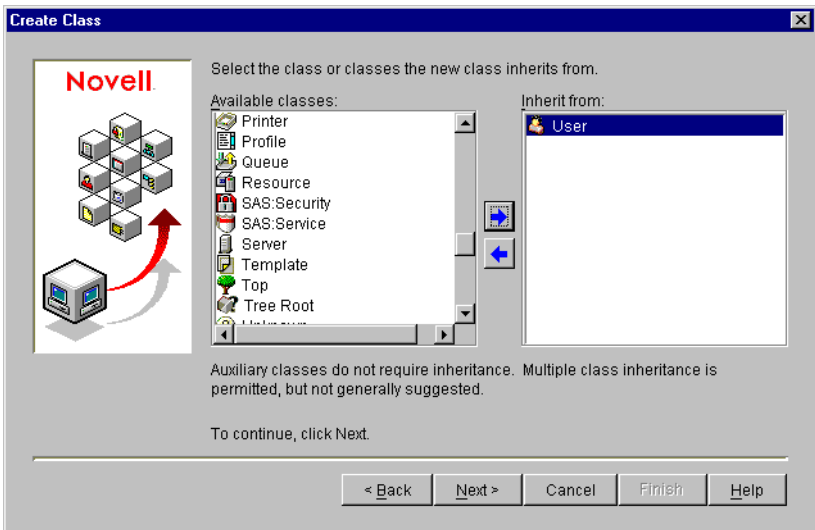
#### *Entering Class Name*

3. As the Class flag, select **Effective Class** (for creating instances from this class) and then click **Next**.



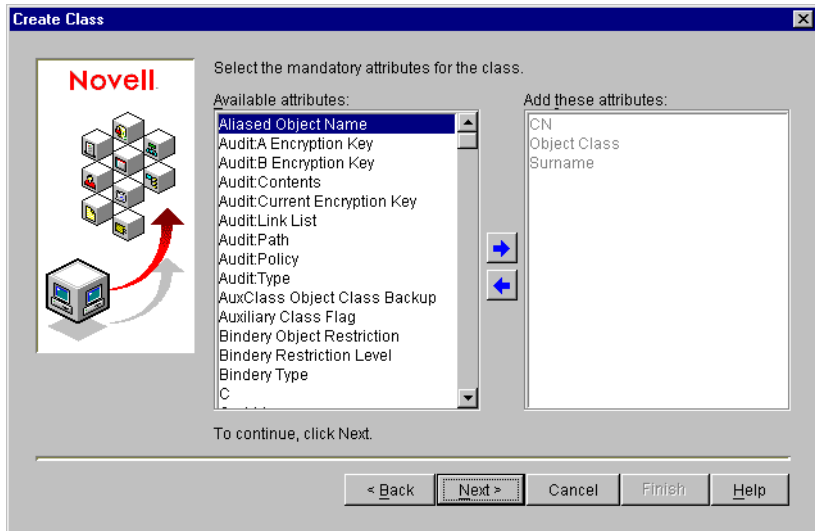
### Selecting Class Flag

- From the **Available Classes** list, choose **User** as the existing class from which the new class will inherit attributes. Click **Next**.



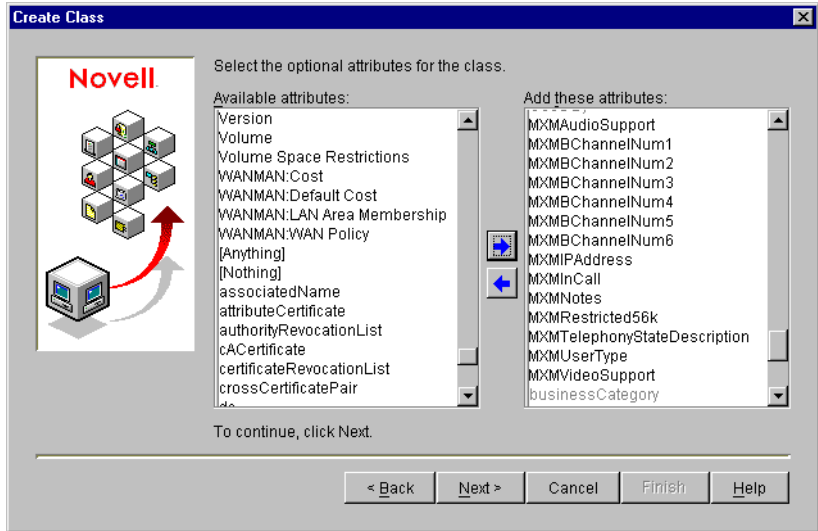
### Inheriting Attributes from Existing Classes

5. In the **Available Attributes** list, do not add mandatory attribute(s) for the new class. By default, the class already includes the attributes **CN**, **Object Class** and **Surname**. Click **Next**.



### *Selecting Mandatory Attributes*

6. Choose optional attribute(s) for the new class. From the **Available Attributes** list, choose all the attributes that you created earlier in this procedure (named **MXM...**). Click **Next**.



### *Selecting the Optional Attributes*

7. For the naming attributes, click **Next** without adding more attributes. For the Container Classes, click **Finish** without adding more classes.
8. Restart the server and then run the NDS management application again.

## Creating an 5700 VFA Container

A separate container on the NDS Services tree keeps the MXMNode objects apart from the other NDS objects.

### ► To create a separate 5700 VFA container

1. Select the organization or organizational unit to which you want to place the MXMNode class and its objects.
2. Right-click, point to **New** and then click **Organizational Unit**.
3. Type **MXM** as the Organization Unit's name and click **OK**.



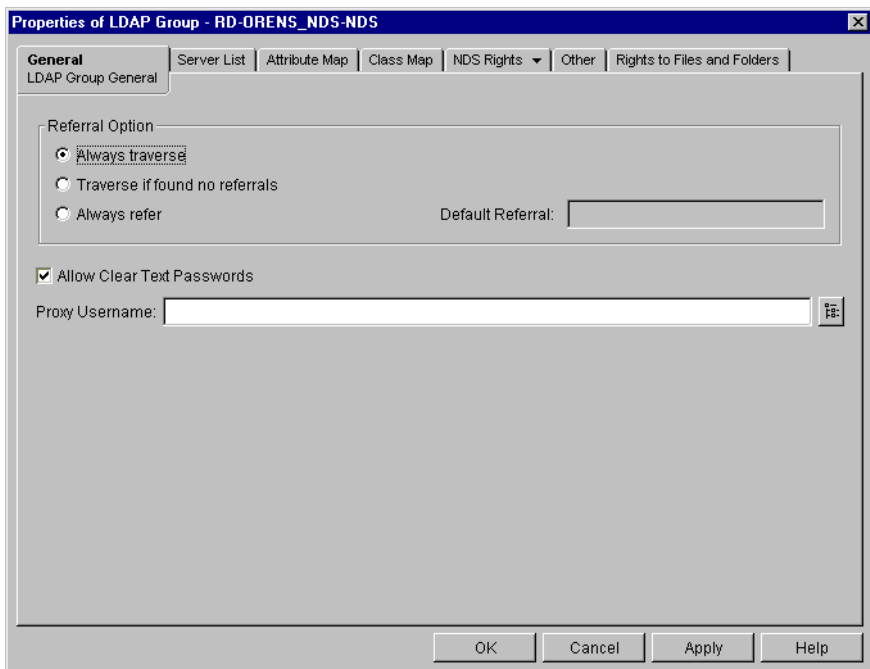
*New MXM Container on Tree*

## Setting Up the LDAP Group Object Configuration

The LDAP Group contains the class and attribute mappings and security policies for one or more LDAP servers. If you plan to use the same configuration on more than one LDAP server, it's easier to set up one LDAP Group object and assign it to each LDAP server in the LDAP Group Server List Properties.

### ► To set up the LDAP Group Object configuration

1. In the container that holds the NetWare Server object, double-click **LDAP Group**.
2. In the LDAP Properties **General** tab, select **Allow Clear Text Passwords**. This option enables the exchange of passwords over nonencrypted connections, and is required for the 5700 VFA's normal operation with the NDS Service.



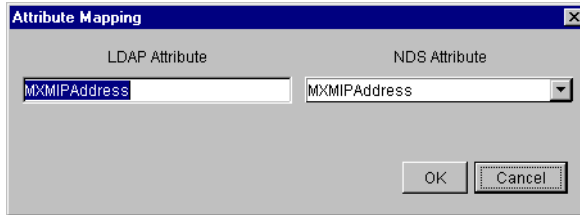
*LDAP Group General Properties Setting for 5700 VFA (MXM)*

3. Click the **Attribute Map** tab, where you will map the NDS schema names of the new 5700 VFA attributes (created in the section, “Creating 5700 VFA Attributes” on page 10-27) to corresponding LDAP names.



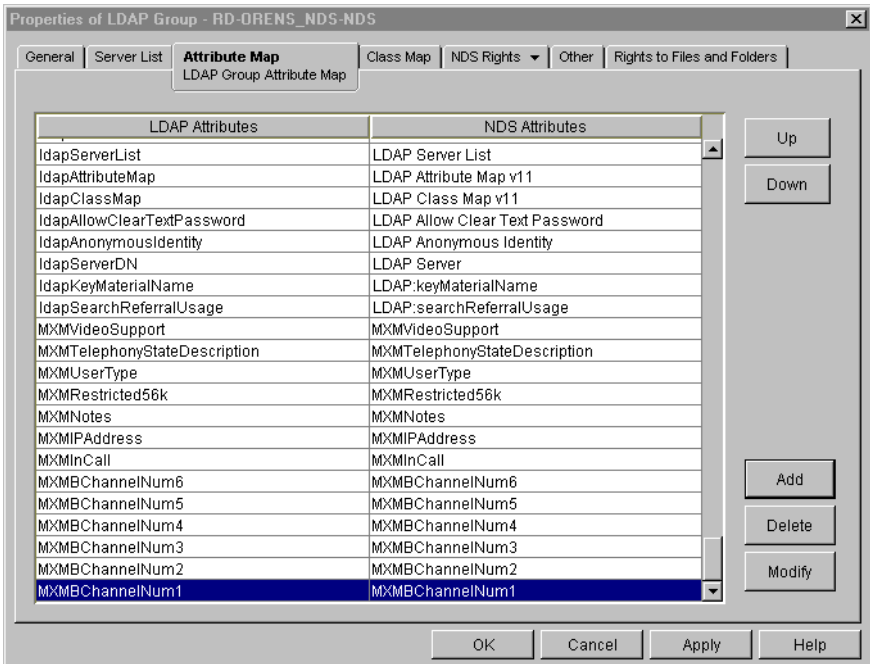
- Click **Add**. In the Attribute Mapping dialog box, choose a new 5700 VFA attribute from the **NDS Attribute** list. Enter that same name into the **LDAP Attribute** box and click **OK**.

Repeat this step for all new attributes.



## Mapping the 5700 VFA (MXM) Attributes to LDAP Attributes

The new 5700 VFA attributes are now part of the LDAP Group configuration.



## Mapped 5700 VFA (MXM) Attributes

- Click **OK** and restart the server and then run the NDS management application again.

## Adding a Trustee for the 5700 VFA MXMNode Container

To use the MXMNode container, you have to set up a user with rights for creating and updating objects in the container. Other than the administrator with Super User privileges, who has full rights on the whole NDS Service tree, it is recommended to designate an 5700 VFA user as a Trustee, who has rights for creating and deleting objects in the MXMNode container.

### ► To add a trustee for the 5700 VFA MXMNode container

1. Right-click the MXMNode organizational unit, point to **Trustees of this object** and then click **Add Trustees**.
2. Browse the NDS tree to find the 5700 VFA user that will be the trustee and click **OK**.
3. For this user's Entry Rights and Attribute Rights, select **Create** and **Delete** (if you want, you can select additional rights).
4. Click **OK**.

## Setting Up the LDAP Configuration in the 5700 VFA Administrator

Finally, you have to set up the LDAP Server configuration for the 5700 VFA in the 5700 VFA Administrator.

### ► To set up the LDAP Configuration of the 5700 VFA



1. In the 5700 VFA Administrator, click the **LDAP Servers View** button.

Server Type	Server Name	Host Address	Host Port	Refresh Connection Interval	Default Directory	Domain	User	Password
ILS	ILS	Default_ILS_Server	389	0	o=Morosoft,objectClass=RTPers			
Exchange	Exchange	Default_Exchange_Ser	389	0	cn=MIM,cn=recipients,ou=Default	Default_Domain	Default_User	*****
NDS	NDS	Default_NDS_Server	389	0	ou=MIM,o=Vcon		Default_User	*****
Win2000	W2K	Default_W2K_Server	389	0	ou=Organization_Unit,dc=Default		Default_User	*****
ILS	ILS2	Default_ILS2	389	0	o=Morosoft,objectClass=RTPers			
ILS	ILS3	Default_ILS3	389	0	o=Morosoft,objectClass=RTPers			
Exchange	Exchange2	Default_ExchangeServ	389	0	cn=MIM,cn=recipients,ou=Default	Default_Domain	Default_User	*****
Win2000	W2K-2	Default_W2K_Server_2	389	0	ou=Organization_Unit,dc=Default		Default_User	*****
	Site Server ILS S	Default_Site_Server_IL	1002	0	objectClass=RTPerson			

### *LDAP Servers View*

2. Make sure that the following information appears in the table:
  - Host address - Exact host name or IP address of the LDAP server.
  - Port - **389**

- Refresh Connection Interval - number of seconds. This value must be greater than **0** (“**0**” indicates that there is no connection with the LDAP server). The recommended value is **30** (seconds).
- Default Directory - Path as created in NDS Tree, reflecting the assigned organization (“**o**”) and organizational unit (“**ou**”). For example, “**ou=MXM, o=vcon**”.
- Domain - keep this space blank.
- User - Valid user in the Exchange Server domain, with access rights to its MXM default directory. For example, “**su, ou=MXM, o=vcon.**”
- Password - Password as defined in the NDS.

To edit an entry, click in the relevant cell(s), then delete and type.



# 11 INITIATING VIDEOCONFERENCES FROM THE 5700 VFA ADMINISTRATOR

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**NOTE** Administrator-initiated calling and hangup are only available for licensed users of the Conference Control Option. If you want to add this option to your 5700 VFA, please contact your local Mitel Networks distributor.

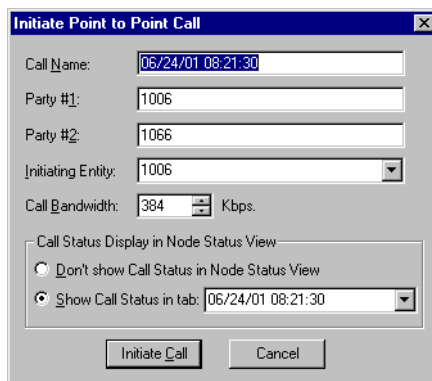
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## 11.1 Administrator-Initiated Dialing

As a system administrator, you can initiate a point-to-point videoconference by connecting two end points listed in the Administrator's Main View. Calls may also be initiated to end points in neighboring zones.

### ► To initiate a point-to-point call through the Administrator

1. Select the parties for the videoconference.
2. Right-click and then click **Initiate point-to-point call**.
3. Make any changes required in the call properties. Otherwise, leave the default settings. For a description of the properties, see "Setting Point-to-Point Videoconference Properties" on page 11-2.
4. Click **Initiate Call**.



The image shows a dialog box titled "Initiate Point to Point Call". It contains the following fields and controls:

- Call Name:** A text field containing "06/24/01 08:21:30".
- Party #1:** A text field containing "1006".
- Party #2:** A text field containing "1066".
- Initiating Entity:** A dropdown menu with "1006" selected.
- Call Bandwidth:** A text field containing "384" followed by a "Kbps." label.
- Call Status Display in Node Status View:** A section with two radio buttons:
  - ☐ Don't show Call Status in Node Status View
  - ☒ Show Call Status in tab: 06/24/01 08:21:30 (with a dropdown arrow)
- Buttons:** "Initiate Call" and "Cancel" at the bottom.

*Initiating a Point-to-Point Videoconference*

## 11.2 *Setting Point-to-Point Videoconference Properties*

If necessary, change point-to-point videoconference properties before connecting the two end points.

<b>Call Name</b>	Name of the videoconference. This name will identify this call in the CDR.
<b>Party #1; Party #2</b>	The two end points in the videoconference.
<b>Initiating Entity</b>	End point that dials to initiate the videoconference.
<b>Call Bandwidth</b>	Maximum bandwidth allocated for the videoconference
<b>Call Status Display in Node Status View</b>	<p>Select <b>Show Call Status in Tab</b> to display the call status in the Node Status View in a specific tab. The name or description listed here is also listed on the tab.</p> <p>Select <b>Don't show Call Status in Node Status View</b> if you don't want to monitor the videoconference in the Node Status View.</p>

## 11.3 *Administrator-Initiated Hang Up*

As a system administrator, you can hang up open calls that include selected users or users within a selected group. For example, if more than one user in the Sales Administrative group are involved in videoconferences but you have to terminate all of that group's calls, select the Sales Administrative group object.

### ► To hang up calls through the Administrator

1. Select the end point(s) or group object that includes the users that you want to disconnect.



2. In the toolbar, click the Hang Up Calls button.  
All calls involving the selected users are therefore disconnected.

## 12 *SETTING UP AD-HOC VIDEOCONFERENCES MANAGED BY A VCB*

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**NOTE** The VCB is available only for licensed users of the combined VCON Conference Bridge and Conference Control Options. If you want to add these options to your 5700 VFA, please contact your local Mitel Networks distributor.

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The VCON Conference Bridge (VCB) is an application that enables the initiation and management of an ad-hoc videoconference, which is a multipoint videoconference that was expanded from a point-to-point conference by one of the conference's parties.

The VCB supports one open session at any single time with up to five parties. The conference's video may be displayed by one of the following methods:

**Voice-Activated  
Switching**

The participants see the video of the participant whose audio signal is strongest. For example, the non-speaking participants see the person speaking.



**Continuous  
Presence**

Several participants in a multipoint conference are viewed and heard simultaneously.



For instructions on installing the VCB, see “Installing the VCON Conference Bridge” on page 2-6.

### 12.1 Setting Up the VCB Configuration

After installation of the VCB, a VCB object appears in the 5700 VFA Administrator's Main View. The VCB object includes a pre-defined service that defines the allocation of available resources for ad-hoc videoconferences.

	10.0.11.107 4012	Logged In Logged In
--	---------------------	------------------------

*VCB Entry in Main View*

### VCB Properties

VCB Properties define the video and audio properties of its ad-hoc videoconferences.

#### ► To set the Properties for ad-hoc videoconferencing

1. Right-click the VCB node and then click Properties. The Properties dialog box for the VCB opens to the **General** tab.
2. Change properties according to your ad-hoc videoconferencing specifications, or keep the default settings (for descriptions of the properties, see the following subsections).
3. To implement the changes and proceed to another tab in the dialog box, click **Apply** and then the appropriate tab.
4. To implement all the changes and close the dialog box, click **OK**.

---

**NOTE** Any changes will take effect for the next ad-hoc session.

---



## General Properties

The **General** tab contains identity information of the VCB.

The screenshot shows a Windows-style dialog box titled "VCB\_ON\_ADMIN-5 Properties (VCBON Conference Bridge)". It has two tabs: "General" and "Session". The "General" tab is active. Inside the dialog, there are several input fields and a dropdown menu. The "Description" field contains "VCB\_ON\_ADMIN-5". Below it, the "H.323 Address" section contains an "Alias" field with "VCB\_ON\_ADMIN-5" and a "Type" dropdown menu set to "H.323 ID". A link "See more addresses at the [Additional IDs page](#)" is visible. The "Network Address" field contains "10. 0. 11.107". The "Build Number" field contains "1.0.M11.D04.Y01". At the bottom, there are four buttons: "OK", "Cancel", "Apply", and "Help".

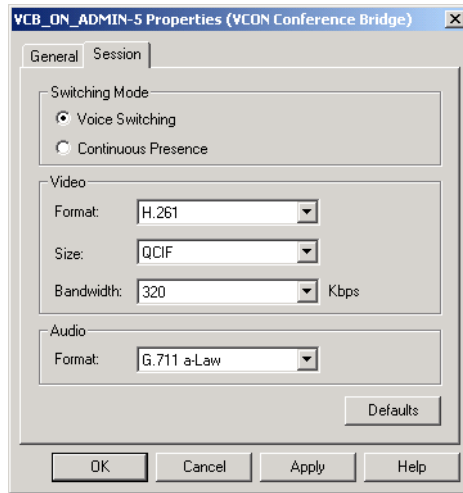
*VCB - General Properties*

In the **General** Properties tab, the following properties appear:

<b>Description</b>	Identity of the VCB. This name will appear in the Main View after the login process is finished.
<i>H.323 Address</i>	
<b>Alias</b>	The VCB's alias name.
<b>Type</b>	The type of address used by the VCB for registering with the 5700 VFA.
<b>Network Address</b>	IP address of the VCB.
<b>Build Number</b>	Version information for the VCB.

### Session Properties

In the **Session** tab, define the video and audio formats for ad-hoc videoconferences managed by the VCB.



*VCB - Session Properties*

#### *Switching Mode*

**Voice Switching** Parties see the video of the speaking person(s).

**Continuous Presence** Several parties are heard and seen simultaneously.

#### *Video*

**Format** The video codec (**H.261**, **H.263**) used in the multipoint conference.

Continuous Presence only supports H.261.

**Size** The size of the transmitted video images:

- **CIF** (Common Interchange Format), or normal size
- **QCIF** (Quarter Size Common Interchange Format), or quarter size

In Continuous Presence, the local side transmits QCIF video and receives CIF video.

**Bandwidth** The bandwidth available for each party in the multipoint conference.

*Audio*

**Format** The audio codec and algorithm used in the multipoint conference.

The VCB supports G.711.

Click **Default** to restore the system's default Session configuration.

## VCB Services Properties

VCB Services define the usage of resources used during an ad-hoc videoconference.

The VCB's services are automatically listed in the 5700 VFA Administrator after installation of the VCB and restart of the computer. One directory number is created for each service type. At any time, you can add or edit service entries from the Main View.

### ► To set the Properties for VCB Services

1. Double-click the VCB Service. The Properties dialog box for the VCB opens to the **General** tab.
2. Change properties according to your ad-hoc videoconferencing specifications, or keep the default settings (for descriptions of the properties, see the following subsections).
3. To implement the changes and proceed to another tab in the dialog box, click **Apply** and then the appropriate tab.
4. To implement all the changes and close the dialog box, click **OK**.

The following subsections describe the VCB Service properties.

### **General Properties**

The **General** tab contains identity information of the new VCB Service.

4012 Properties (MCU Service)

General | Bandwidth Control | Ad-hoc Conference | Services

Directory Number : 4012

Description : 4012

H.323 Address

Alias : 4012 Type: E.164

See more addresses at the [Additional IDs page](#)

Network Address: 10. 0. 11.107

OK Cancel Apply Help

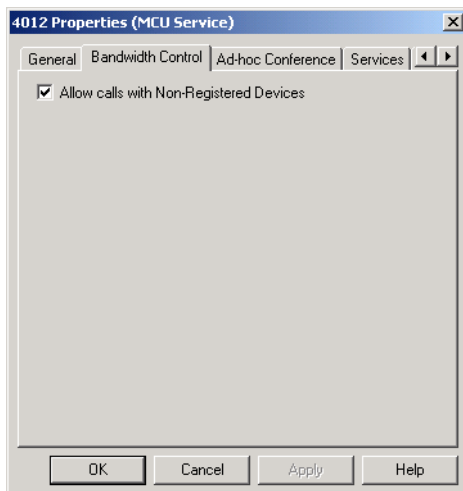
*VCB Service - General Properties*

In the **General** Properties tab, the following properties appear:

<b>Directory Number</b>	Number to be dialed for using this service.
<b>Description</b>	Name of the service. This name will appear in the Main View after the login process is finished.
<i>H.323 Address</i>	
<b>Alias</b>	The service's alias.
<b>Type</b>	The type of address used by the VCB for registering the service with the 5700 VFA.
<b>Additional IDs page</b>	Click this link to view any additional IDs that have been configured for this service.
<b>Network Address</b>	IP address of the VCB.

### **Bandwidth Control Properties**

In the **Bandwidth Control** tab, select **Allow calls with Non-registered Devices** to allow non-registered devices to participate in any multipoint videoconferences using this service.



*VCB Service - Bandwidth Control Properties*

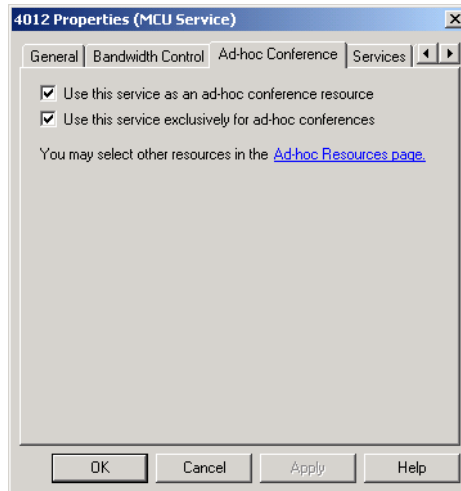
### **Ad-Hoc Conference Properties**

A point-to-point conference becomes an ad-hoc conference when additional end points are "invited" by one of the parties and they join the session. The **Ad-hoc Conference** tab indicates that the selected VCB Service is exclusively used for use in ad-hoc conferences.

---

**NOTE** Because the VCB is intended for expansion to ad-hoc conferences, these options are selected automatically and may not be turned off.

---



*VCB Service - Ad-hoc Conference Properties*

**Use this service as an ad-hoc conference resource** This service is available for use when expanding to an ad-hoc videoconference.

**Use this service exclusively for ad-hoc conferences** This service is available only for use in ad-hoc videoconferences, and unavailable for point-to-point sessions.

**Ad-hoc Resources page** Click this link to open the 5700 VFA Ad-hoc Resources Properties, in which you can also select other VCB Services that may be used for ad-hoc videoconferences (see “Ad-hoc Resources” on page 5-13).

**LDAP Properties**

The **LDAP** tab provides information about the VCB service's registration, if applicable, in an LDAP (Lightweight Directory Access Protocol) server. For information about nodes' LDAP Properties, see "LDAP Properties" on page 6-13.

**Additional ID Properties**

In addition to its directory (E.164) number, a VCB service may have other addresses that may be used to dial it, such as additional E.164 addresses and/or H.323 Alias. In the **Additional ID** page, you may enter these, if applicable. For more information about adding Additional IDs, see "Additional IDs Properties" on page 6-14.

**12.2 Expanding to an Ad-hoc Videoconference**

To expand from a point-to-point videoconference to an ad-hoc videoconference, one of the parties must invite the additional parties. This procedure depends on the party's videoconferencing application:

- |                                      |   |
|--------------------------------------|---|
| <b>MeetingPoint 4.6,<br/>5760 VC</b> | Use the <b>Invite</b> command. For further instructions, refer to the <i>5700 VFA End Point's Guide</i> , <i>5760 VC User's Guide</i> or the <i>VCON MeetingPoint 4.6 User's Guide</i> .  |
| <b>Other<br/>applications</b>        | Enter the defined Ad-hoc Conference code (default is <b>*77</b> ) followed by the directory number of the additional party. For example, to invite end point 2345, enter <b>*772345</b> . |





## 13 CUSTOMIZING THE 5700 VFA ADMINISTRATOR

In the 5700 VFA Administrator application, you may customize the application according to your personal preferences. A set of defined window, table, and layout properties for the Administrator application is called a *workspace*. This chapter explains the following customization tasks:

- Defining the Main View Options
- Setting Up the Workspace
- Customizing the Toolbar
- Customizing the Status Views

### 13.1 Defining the Main View Options

You can customize the following elements of the Main View through the Options dialog box.

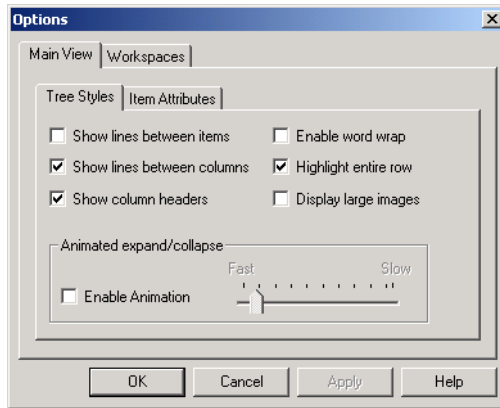
- ☐ Tree Styles - the appearance of the table format of the Main View.
- ☐ Item Attributes - the appearance (font, color, and so on.) of the various objects, such as end points and login requests.

#### Tree Styles

The Tree Styles Options control the appearance of tables in the main Administrator application window.

#### ► To set Main View table properties

1. In the **View** menu, click **Options**. The Options dialog box appears with the **Tree Styles** tab open.
2. Change the appropriate properties. For descriptions of these properties, see “Tree Styles Properties” on page 13-2.
3. Click **OK** to complete the change. If you want to discard the change, click **Cancel**.



*Tree Styles Options*

### **Tree Styles Properties**

Set the Tree Styles properties according to your viewing preferences.

#### **Enable Word Wrap**

Select this option to cause text in each column to continue automatically on the next line, after it reaches the end of each line. The line width is determined by the column borders.

If this option is not selected, sections of long phrases or names, that are not within the column borders, are not seen. However, a tooltip appears over those names.

#### **Show Column Headers**

Select this option to display the column names that identify the information that appears in the Main View.



*Main View Column Headers*

#### **Show Lines Between Columns**

Select this option to display the vertical borders between columns of the Main View.

#### **Show Lines Between Items**

Select this option to display the horizontal borders between items.

**Highlight Entire Row**

Select this option to highlight the entire row when you select an item. In this case, you can click anywhere on the row.

Deselect this option to highlight only the item name when you select it. In this case, you must click the name to highlight it.

**Display Large Images**

Select this option to view the workspace's details and images at a larger size.

**Animated Expand/Collapse**

Select this option to expand and collapse the levels of the System tree in a graded, stuttering motion. To control the speed, drag the speed slider towards the left for faster motion or towards the right for slower motion.

Deselect this option to expand and collapse the levels in one swift motion.

**Item Attributes**

In the **Item Attributes** tab, you can customize the way entries are indicated in the Main View. For example, you can change the color of the characters in order to differentiate between Mitel Networks end points, MCUs, hunting groups and so on. Also, you can assign sounds to indicate occurrences such as login requests.

To use the factory-set indication styles, do not make any changes. Keep **Use Default Attributes** selected for all entries.

**► To customize the indications for entries in the Main View**

1. In the **View** menu, click **Options**. Click the **Item Attributes** tab.
2. From the **Item** list, select the entry type you want to customize.
3. Deselect **Use Default Attributes**.

4. Customize items, according to your own specifications, as follows:

### *Font Style*

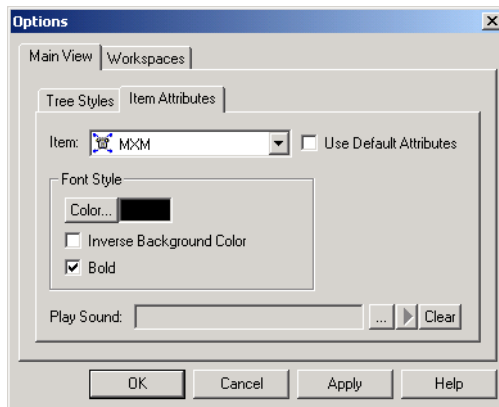
**Color** Click and choose another color from the palette. If you want, you can also create colors that don't appear on the original palette.

**Inverse Background Color** Select to add a highlight background to the item in the Main View.

**Bold** Select to display the item name in bold letters in the Main View.

**Play Sound** If you want, associate a sound with the item. Click this button to browse and locate Wave (*wav*) files. For example, you can find login request indication files in the `\\Vcon\Administrator` folder. Otherwise, you can use a *wav* file from another source.

5. Click **OK**.



*Main View Item Attributes*

## 13.2 Setting Up the Workspace

Several options are available for customizing the 5700 VFA Administrator's workspaces in accordance with your operating preferences.

### Defining Workspace Options

The Options dialog box **Workspaces** tab contains options for storing the data and appearance that are associated with a specific Workspace.

#### ► To define Workspace options

1. In the **View** menu, click **Options**. The Options dialog box opens to the **Workspaces** tab.
2. Change the appropriate properties. For descriptions of the properties, see "Workspace Properties" on page 13-5.
3. Click **OK** to complete the change. If you want to discard the change, click **Cancel**.

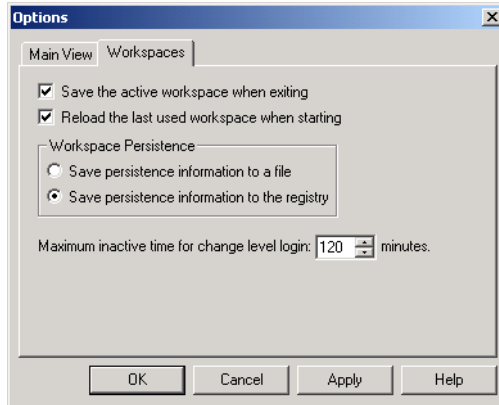
### Workspace Properties

Set Workspace properties as follows:

- |   |  |
|---|--|
| <b>Save the active workspace when exiting</b>       | Select this option to automatically save all the current Workspace properties whenever you close the Workspace or the Administrator application.   |
| <b>Reload the last used workspace when starting</b> | Select this option to open the previously used Workspace whenever you start the Administrator application.   |
| <b>Workspace Persistence</b>                        | <p>Persistence information includes the customization properties defined for the workspace and the data about devices and other nodes that are defined within that workspace.</p> <p><input type="checkbox"/> Select <b>Save Persistence Information to a file</b> to store all of the current workspace's data in a file located in the Administrator application's root directory (Default is <i>C:\Program Files\Mitel\Admin</i>).</p> <p><input type="checkbox"/> Select <b>Save Persistence Information to the registry</b> to store all of the current workspace's data in the system Registry</p> |

### Maximum inactive time for change level login

For administrators with “Change” privileges, this is the maximum amount of time that the 5700 VFA administrator remains idle. When this interval passes, a message asks you to disconnect or stay connected. If you do not respond, the administrator disconnects from the system.



*Workspace Options*

## Managing Workspaces

The 5700 VFA Administrator application provides functions for managing and storing workspaces. These functions include:

- Saving a workspace
- Renaming a workspace
- Deleting a workspace
- Opening a workspace
- Reorganizing the Workspace list.

### Saving a Workspace

A workspace may be saved in different formats:

- ☐ As a file - this is advantageous if you may log in to the 5700 VFA and use the same workspace from other computers.
- ☐ As information stored in the system registry - this is advantageous if more than one administrator may log in to the 5700 VFA from the same computer.

#### ➤ To save a workspace as a file

---

**NOTE** In order to save workspaces as files, the **Save persistence information to a file** option of the Options dialog box must be selected. For more details, see “Defining Workspace Options” on page 13-5.

---

1. In the **File** menu, point to **Workspaces** and click **Save Workspace Now**. The Save Workspace dialog box appears.
2. To create a new workspace file, type the name in the **File Name** box and click **Save**. The system automatically adds a *.paw* extension to the filename.

-or-

To update a previous workspace file, double-click the name of the file from the list. Then, click **Yes** to confirm.

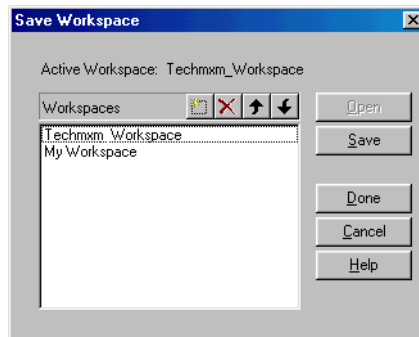
### ► To save a workspace in the system registry

**NOTE** In order to save workspaces in the registry, the **Save persistence information to the registry** option of the Options dialog box must be selected. For more details, see “Defining Workspace Options” on page 13-5.

1. In the **File** menu, point to **Workspaces** and click **Save Workspace As**. The Save Workspace dialog box appears.



2. Click the **New (Insert)** button.
3. Type the name of the new workspace.
4. Click in the free space of the dialog box. A confirmation request appears.
5. Click **Yes** to save the new workspace.



*Saving a Workspace to the Registry*



## **Renaming a Workspace**

The procedure for renaming a workspace depends on whether you save workspaces to files or to the registry.

### **➤ To rename a workspace file**

---

**NOTE** In order to rename a workspace file, the **Save persistence information to a file** option of the Options dialog box must be selected. For more details, see “Defining Workspace Options” on page 13-5.

---

1. In the **File** menu, point to **Workspaces** and click **Open Workspace**. The Open Workspace dialog box appears.
2. Click the workspace file that you want to rename. After 1 second, click again. The filename is highlighted for editing.
3. Type the new name and then click outside the new name area. The workspace file is now renamed.

### **➤ To rename a workspace that is stored in the registry**

---

**NOTE** In order to rename a workspace in the registry, the **Save persistence information in the registry** option of the Options dialog box must be selected. For more details, see “Defining Workspace Options” on page 13-5.

---

1. In the **File** menu, point to **Workspaces** and click **Open Workspace**. The Open Workspace dialog box appears.
2. Double-click the workspace that you want to rename. The name is highlighted for editing.
3. Type the new name and then click below the list.
4. Click **Done** to exit the dialog box.

### Opening a Workspace

The procedure for opening a workspace depends on whether you save workspaces to files or to the registry.

#### ➤ To open a workspace file

---

**NOTE** In order to open a workspace file, the **Save persistence information to a file** option of the Options dialog box must be selected. For more details, see “Defining Workspace Options” on page 13-5.

---

1. In the **File** menu, point to **Workspaces** and click **Open Workspace**. The Open Workspace dialog box appears.
2. Double-click the file that you want to open. The Login To [5700 VFA name] dialog box appears.
3. Type the required password and then click **Login**. The workspace opens in the Administration window.

#### ➤ To open a workspace from the registry

---

**NOTE** In order to open a workspace from the registry, the **Save persistence information in the registry** option of the Options dialog box must be selected. For more details, see “Defining Workspace Options” on page 13-5.

---

1. In the **File** menu, point to **Workspaces** and click **Open Workspace**. The Open Workspace dialog box appears.
2. Click the workspace that you want to open and then click **Open**. The Login To [VFA name] dialog box appears.
3. Type the required password and then click **Login**. The workspace opens in the Administration window.

## **Deleting a Workspace**

The procedure for deleting a workspace depends on whether you save workspaces to files or to the registry.

### **► To delete a workspace file**

---

**NOTE** In order to delete a workspace file, the **Save persistence information to a file** option of the Options dialog box must be selected. For more details, see “Defining Workspace Options” on page 13-5.

---

1. In the **File** menu, point to **Workspaces** and click **Open Workspace**. The Open Workspace dialog box appears.
2. Right-click the workspace file that you want to delete and then click **Delete**. Click **Yes** to confirm.

The workspace file is deleted from the system.

### **► To delete a workspace from the registry**

---

**NOTE** In order to delete a workspace from the registry, the **Save persistence information in the registry** option of the Options dialog box must be selected. For more details, see “Defining Workspace Options” on page 13-5.

---

1. In the **File** menu, point to **Workspaces** and click **Open Workspace**. The Open Workspace dialog box appears.



2. Click the workspace that you want to delete and then click the **Delete** button.

The workspace is deleted from the system. No confirmation is requested.

3. Click **Done** to exit the dialog box.

### 13.3 Customizing the Toolbar

You can set the appearance and the buttons of the toolbars according to your preferences.

#### Defining the Toolbar Display

By default, the toolbars are docked in the Administrator window below the menu bar. You can choose any or all toolbars to be part of the application display. In addition, you can select among a number of other appearance options.

##### ► To define the toolbar display

1. In the **View** menu, click **Customize**. The Customize dialog box opens to the **Toolbars** tab.
2. To display a particular toolbar on the screen, select it in the **Toolbars** list. To hide a toolbar, deselect it.
3. Set the toolbar display properties according to your preferences. The toolbar display changes as you change each setting. For a description of these properties, see “Toolbar Display Properties” on page 13-13.

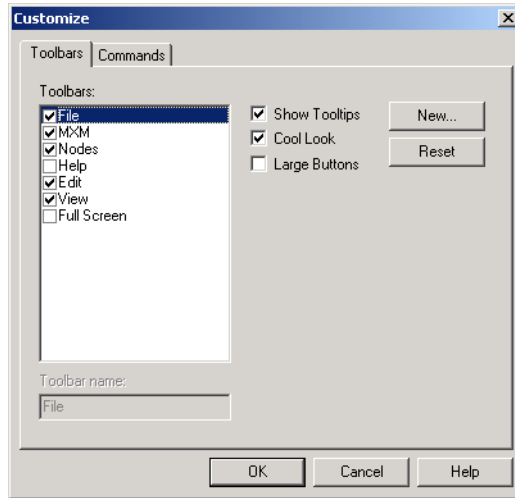
To return a toolbar to its default formation, select it in the **Toolbars** list and then click **Reset**.

4. Click **OK** to complete the change. If you want to discard the change, click **Cancel**.

---

**NOTE** If you want to change the buttons on the toolbars, click **Apply** to implement the toolbar display property changes. Then, click the **Commands** tab.

---



*Customizing Toolbar Display Properties*

### **Toolbar Display Properties**

Set toolbar display properties as follows:

- |                      |   |
|----------------------|---|
| <b>Toolbars</b>      | In this list, select any or all of the various toolbars that will appear in the Administrator application window. Only toolbars that are marked with a ✓ will appear. |
| <b>Show Tooltips</b> | Select this option to display tool tips when you hold the pointer over a button for about 1 second.   |
| <b>Cool Look</b>     | Select this option to cause each button to display a raised effect when the pointer points it.<br><br>When deselected, the buttons are static with clear borders.     |
| <b>Large Buttons</b> | Select this option to increase the size of the buttons by 400% (4x).  |

### Adding and Removing Toolbar Buttons

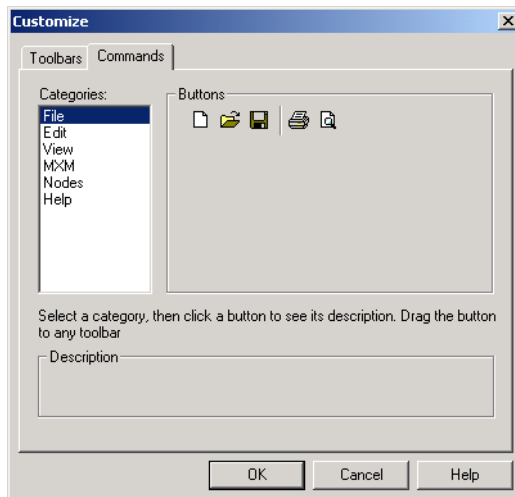
You can control the contents of each toolbar by adding or removing buttons, or moving buttons among the various toolbars.

#### ► To control the contents of the various toolbars

1. In the **View** menu, click **Customize**. The Customize dialog box opens to the **Toolbars** tab.
2. Click the **Commands** tab.
3. To add a button to any toolbar, select a category from the **Categories** list. Drag the appropriate button to any toolbar in the Administrator window that you want.

To remove a button from any toolbar, drag the button to the Customize dialog box.

To move a button to another toolbar, drag the button to the new location.



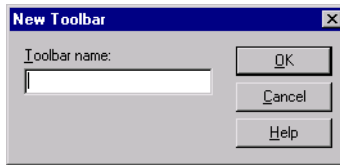
*Customizing Toolbar Button Contents*

## Creating a Custom Toolbar

You can add a toolbar other than the standard ones provided by the Administrator application.

### ► To add a custom toolbar

1. In the **View** menu, click **Customize**. The Customize dialog box opens to the **Toolbars** tab.
2. Click **New**. The New Toolbar dialog box appears.



### *Adding a Custom Toolbar*

3. Type the name of the new toolbar and click **OK**. The new toolbar appears in the Administrator window and its name appears in the **Toolbars** list.
4. Click the **Commands** tab.
5. Switching **Categories** according to your preference, drag any number of toolbars to the new toolbar.
6. Click **OK** to close the dialog box.

### 13.4 Customizing the Status Views

According to your preferences, you can customize the way that the Administrator displays information in the various status view tables. Design functions are available for:

- ☐ Displaying the various views
- ☐ Style formats for table elements or types of information.
- ☐ Style formats for printed tables.

#### Setting Table On-Screen Display Properties

This section provides instructions for customizing the on-screen display of the Administrator application's various table views. You can control the appearance of table elements such as gridlines and column heads, colors, and current cell.

---

**NOTE** The display properties affect only the active table view. To set the display properties of another specific table, you must enter that particular view.

---

#### ► To set table on-screen display properties

1. In the View toolbar, click the table view that you want to format.



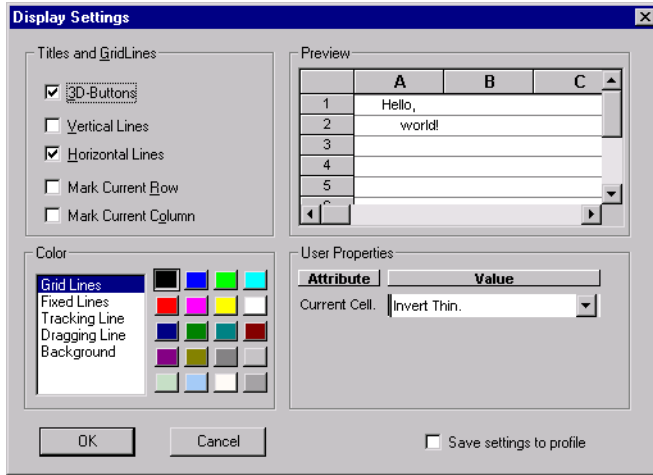
*View Command Buttons*

2. In the **View** menu, click **Display Properties**. The Display Settings dialog box appears.
3. Set the display properties according to your preferences. For a description of these properties, see “Table Display Settings” on page 13-17.

In the **Preview** area of the dialog box, you can preview the effects of your changes.

4. Click **OK** to implement the settings.





*Table Display Settings*

## **Table Display Settings**

Set the table display properties as follows:

### **Titles and Gridlines**

Select **3D Buttons** to display column and row titles inside borders.

Select **Vertical Lines** to display borders between columns.

Select **Horizontal Lines** to display borders between rows.

Select **Mark Current Row** and/or **Mark Current Column** to provide a 3-D pressed appearance to the selected row/column heading.

### Color

Click any item in the Color list and then click the required color from the adjacent palette.

- ☐ **Grid lines** are the borders between columns and rows.
- ☐ **Fixed lines** are rows that are in a specific location permanently. They cannot be sorted.
- ☐ **Tracking Line** is the border that is being dragged during a Resize Column/Row action.
- ☐ **Background** represents the empty area behind and around the table.

### User Properties

In the **Value** list, select the option that determines the appearance of the adjacent **Attribute**.

## Style Formats for Table Elements or Types of Information

You can customize the display styles of various table elements, such as column headers and standard cells. For example, you can change the font style and colors of particular information that must be quickly recognizable.

---

**NOTE** The style formats affect only the active table view. To set the style formats of another specific table, you must enter that particular view.

---

### ► To change the formatting of a table element

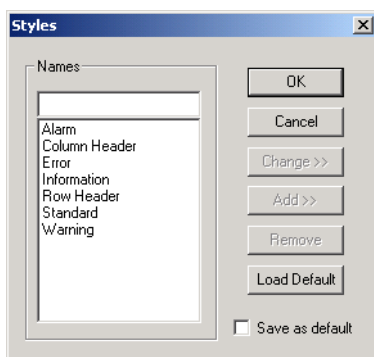
1. In the View toolbar, click the table view that you want to format.



2. In the **Format** menu, click **Styles**. The Styles dialog box appears.
3. In the **Names** list, click the element that you want to format and then click **Change**.

A style formatting dialog box appears for the selected element. By default, the **Font** tab is open.

4. Set the style properties according to your preferences. For a description of these properties, see “Style Format Properties” on page 13-20.
5. Click **OK** to complete the change. If you want to discard the change, click **Cancel**.



*Table Element Styles Dialog Box*

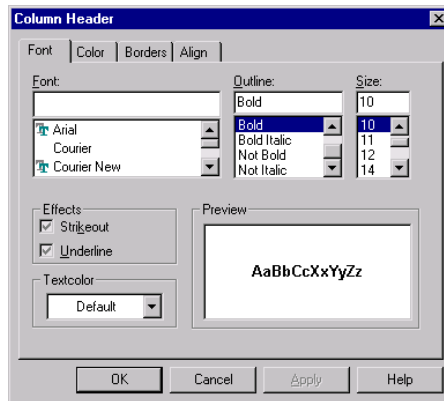
### **Style Format Properties**

The following categories make up a table element style:

- Font
- Color
- Borders
- Align

#### *Font Properties*

For the table's text, you can select the font, its size, and any special characteristics such as **Bold** or **Underlined**.

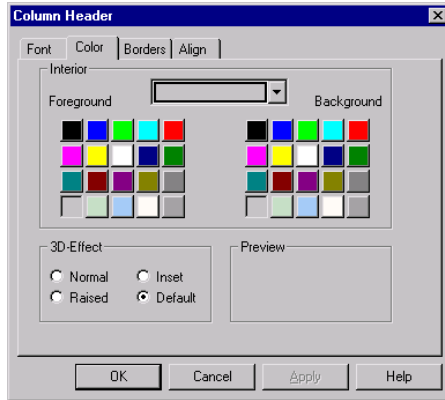


#### *Font Properties*

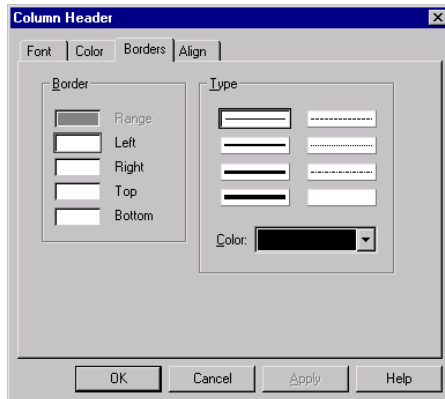
#### *Color Properties*

In the style changing dialog box, click the **Color** tab.

- ☐ To change the color of the table element, click a color in the **Foreground** group.
- ☐ To change 3-D effect (such as raised, pressed, or normal flat) of the table element, select one of the options in the **3-D Effect** group.

*Color Properties**Borders Properties*

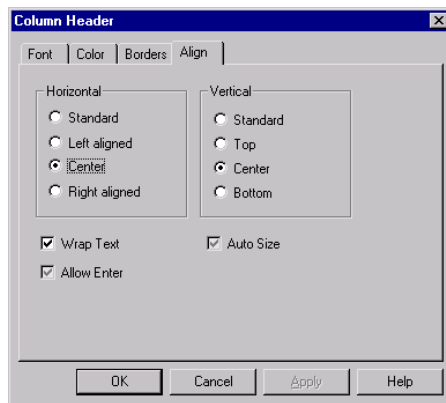
1. In the style changing dialog box, click the **Borders** tab.
2. In the **Border** group, select the side(s) of the cells that you want to change.
3. In the **Type** group, select a type of line and/or thickness. If necessary, select a different color from the **Color** list.

*Borders Properties*

### *Align Properties*

To change Align properties of the selected table element, click the Align tab in the style changing dialog box.

- ☐ In the **Horizontal** group, select left, center or right text alignment in the cells.
- ☐ In the **Vertical** group, select top, center, or bottom text alignment in the cells.
- ☐ Select **Wrap Text** to display cell text on a new line if the text exceeds the cell's borders.
- ☐ Select **Auto Size** to set the size of the columns automatically according to the column's content.



*Align Properties*

# A MEETINGPOINT END POINT PROPERTIES

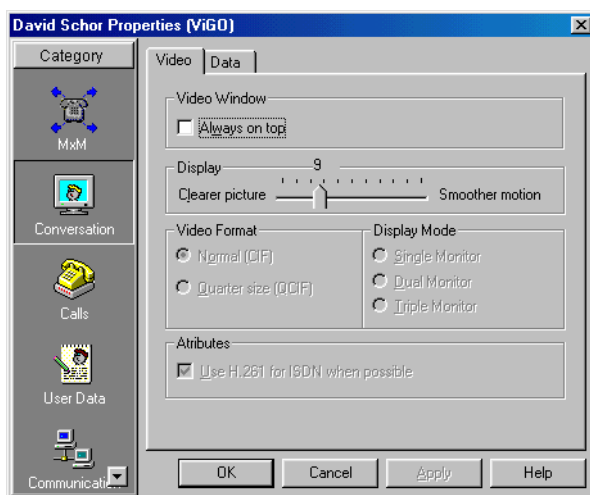
From the 5700 VFA Administrator application, the administrator may view and control various properties of MeetingPoint 4.5 (and higher) end points. MeetingPoint is the videoconferencing application used by VCON's Escort, Cruiser, and MediaConnect 8000 and by Mitel Networks 5750 DV.

## A.1 Conversation Properties

The Conversation Properties dialog box may be used for viewing and controlling the Video and Data settings of MeetingPoint end points.

### Video

You may control certain video features that improve the quality of the video transmission from the selected MeetingPoint end point.



*MeetingPoint End Point - Video Properties*

#### Video Window

##### **Always on Top**

Select to keep the Video windows and their subapplications (such as Camera Controller) always on top of all open windows, even if another application is selected. When this command is not selected, a selected application may hide the Video windows.

### *Display*

**Clearer Picture/  
Smoother  
Motion** This control enables you to define the relationship between clear, sharp images and smooth uninterrupted motion during the video transmission. If the picture is clearer, the motion may be slower and more broken. If the motion is smoother, the picture may be less clear.

Drag the slider until you are satisfied with the image sharpness and the smoothness of motion. There are 30 possible settings on the slider – **1** represents the clearest picture but the most uneven motion; **30** represents the smoothest motion but the most blurry picture.

### *Video Format*

The type of video format in which the current video meeting is broadcast. This setting affects the viewing quality for the remote party, and may only be changed during a call. The possible options are:

**Normal (CIF)** Common Interchange Format (CIF) provides a higher resolution at a lower frame rate. Usually, CIF provides better overall video quality, especially when a higher transmission bandwidth, such as 2 x BRI (at least 128 kbps) is available.

**Quarter Size (QCIF)** Quarter Size Common Interchange Format (QCIF) may be chosen if the remote party has a system that does not support CIF format, or if the bandwidth is low.

### *Display Mode*

This setting is applicable if the end point is a MediaConnect 8000 system. The display mode determines how local video, remote video and software applications (such as MeetingPoint) are displayed at this end point.

**Single Monitor** Video and applications on the SVGA monitor only.

**Dual Monitor** Video on the TV monitor, applications on the SVGA monitor.

**Triple Monitor** Local video on one TV monitor, remote video on the second TV monitor, and applications on the SVGA monitor.



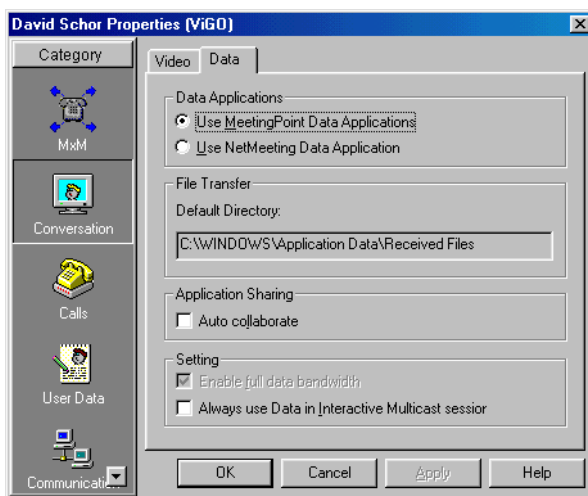
*Attributes***Use H.261 for ISDN when possible**

Select if you are sure of gaining a connection at a higher bitrate—for example, if you are dialing 3 or more ISDN channels.

The default codec recommendation is H.263, which includes techniques for improved video performance over low bitrates.

**Data**

The **Data** tab provides several options for preparing to share data during videoconferences.



*MeetingPoint End Point - Data Properties*

*Data Applications***Use MeetingPoint Data Applications**

Select if you want the selected user to use MeetingPoint's standard data sharing features. Selecting this option can save you time and computer memory.

**Use NetMeeting Data Application**

Select if you want the selected user to use the full Microsoft NetMeeting data sharing application.

If you change the data sharing method, the change only takes effect after the end point exits and start MeetingPoint again.

---

**NOTE** It is recommended to select a common data sharing method for all logged-in users.

---

### *File Transfer*

**Default Directory** This box shows the path of the folder that receives files transferred to the selected computer during a video meeting.

### *Application Sharing*

**Auto Collaborate** Select to automatically enable a remote party to work (instead of observing passively), together with the selected user, in a shared application.

### *Setting*

**Enable Full Data Bandwidth** This feature permits temporary increases in bandwidth during a video meeting. This speeds up the transfer of large amounts of data. The system temporarily uses the bandwidth allocated for video transmission for the transfer of data. This results in the prevention of video transmission until data transfer is complete.

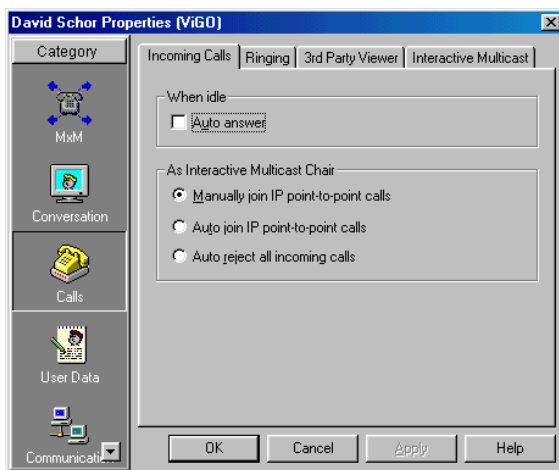
**Always use Data in Interactive Multicast Sessions** Select to open a data connection automatically whenever the selected user initiates an Interactive Multicast video meeting as the chair.

## A.2 Calls Properties

The Calls Properties dialog box may be used for viewing and controlling incoming call and multicast (if applicable) properties of MeetingPoint end points.

### Incoming Calls

In the **Incoming Calls** tab, customize how the MeetingPoint end point indicates and accepts incoming calls.



*MeetingPoint End Point - Incoming Calls Properties*

#### *When Idle*

**Auto answer** Select to enable the selected user to automatically accept all calls when its system is not in a video meeting.

#### *As Interactive Multicast Chair*

If the end point supports VCON's Interactive Multicast, it may sometimes be the Chair of multicast video meetings. If another party calls it while it chairs a meeting, that call may be accepted or rejected according to the selected option:

**Manually join IP point-to-point calls** Select to enable the selected user to either join or reject callers to an ongoing Multicast meeting.

### **Auto join IP point-to-point calls**

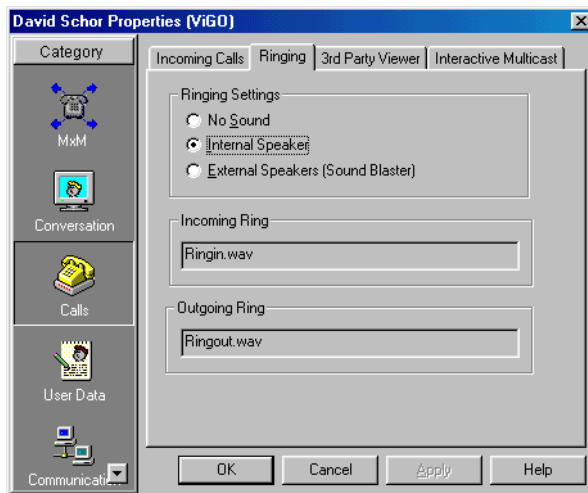
Select to enable the selected user to automatically join callers to an ongoing Multicast meeting.

### **Auto reject all incoming calls**

Select to enable the selected user to automatically reject incoming calls to an ongoing Multicast meeting.

## **Ringing**

You can define the method to notify the selected user that a call is coming in or going out.



*MeetingPoint End Point - Ringing Properties*

### *Ringing Settings*

#### **No Sound**

Select to receive calls and to call out with no accompanying ringing sound.

#### **Internal Speaker**

Select if you want the ringing to originate from the computer's standard speaker.

### External Speakers

Select if you want the ringing to originate from connected external speakers.

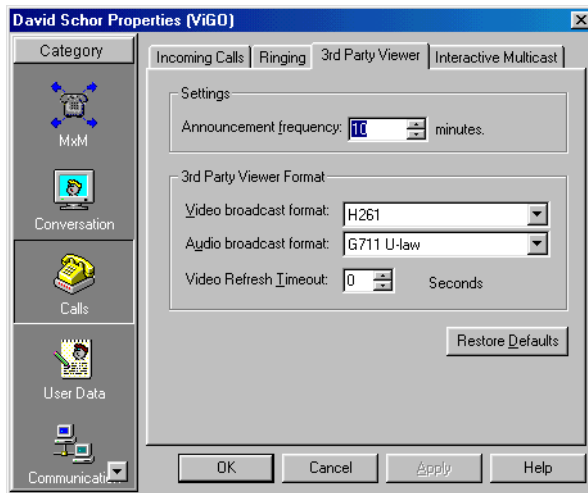
### Incoming Ring/Outgoing Ring

If the end point is using external speakers, ringing sounds other than the defaults may be used. If applicable, the appropriate filenames appear in these boxes.

## 3rd Party Viewer

**NOTE** This tab is only available for end points with the Interactive Multicast option.

The Calls Properties **3rd Party Viewer** tab contains options for transmission of an Interactive Multicast video meeting through third-party viewers.



*MeetingPoint End Point - 3rd Party Viewer Properties*

### Settings

#### Announcement Frequency

In this list, click the number of minutes as an interval between announcements of the Multicast video meeting in the third-party viewer's schedule. Persons subscribing to the third-party viewer can see the announcement when they are online.

### *3rd Party Viewer Format*

The default third-party viewer settings are recommended for most Multicast broadcasting conditions. Change them **ONLY** if the remote systems' specifications differ from the default values.

**Video Broadcast Format** In this list, click a format that all parties in the meeting are capable of using.

**Audio Broadcast Format** In this box, click the audio standard that all parties in the meeting are capable of using.

---

**NOTE** For third-party-compatible video meetings, the above settings are used instead of the Broadcast Format settings in the **Interactive Multicast** tab.

---

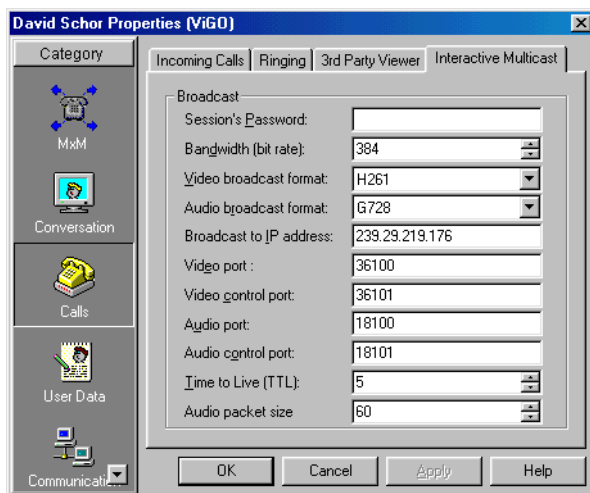
**Video Refresh Timeout** In this list, click the maximum number of seconds required until the video broadcast is synchronized for all viewers.

**Restore Defaults** Click this button to return to the original preset third-party viewer settings.

## Interactive Multicast

**NOTE** This tab is only available for end points with the Interactive Multicast option.

In the Call Properties **Interactive Multicast** tab, define the default configuration for Interactive Multicast video meetings.



*MeetingPoint End Point - Interactive Multicast Properties*

### Broadcast

The default Broadcast settings are recommended for most Multicast broadcasting conditions. Change them **ONLY** if your network's specifications require different settings (for example, if your organization has a firewall).

### Session's Password

If you want to restrict entry into the Interactive Multicast video meetings that the end point initiates, define a security password. In this box, type the characters that make up the password.

If you want to allow anyone who calls the end point to join the multicast meeting, leave this box blank.

<b>Bandwidth</b>	In this list, click the maximum bandwidth for the Interactive Multicast video meetings. The actual bandwidth will depend on the amount of available bandwidth during a meeting.
<b>Video Broadcast Format</b>	In this box, click the video coding standard that all parties in the meeting are capable of using.
<b>Audio Broadcast Format</b>	In this box, click the audio standard that all parties in the meeting are capable of using.
<b>Broadcast to IP Address</b>	In this box, type the destination IP address for an Interactive Multicast video meeting. All participants in the session transmit and receive from this common IP address. This address must be a class D address in the range of <b>224.0.0.0</b> to <b>239.255.255.255</b> .
<b>Video Port</b>	In this box, type the ID of the port used for the video connection.
<b>Video Control Port</b>	In this box, type the ID of the port used for transferring control and synchronization information about the video transmission.
<b>Audio Port</b>	In this box, type the ID of the port used for the audio connection.
<b>Audio Control Port</b>	In this box, type the ID of the port used for transferring control and synchronization information about the audio transmission.
<b>Time to Live (TTL)</b>	In this list, click the maximum number of routers that the packets sent from your system may pass through.
<b>Audio Packet Size</b>	In the box, enter the number of bits that make up a packet carrying audio.



### A.3 User Data Properties

The End Point User Data property dialog boxes may be used for viewing and entering identification, business and location information about the selected user. This information is optional and does not affect the functioning of the 5700 VFA and the communication within its network.

**David Schor Properties (ViGO)**

Category: General | Location

Nickname: David

Last name: Schor

First name: David

Company: vcon

Position: Team Leader

Department: Techpub

Notes:

Picture file:

OK Cancel Apply Help

*MeetingPoint End Point - General User Properties*

**David Schor Properties (ViGO)**

Category: General | Location

Voice 1: Fax:

Voice 2: Pager:

Mobile: E-mail:

WWW:

Address: Mailing Address:

Address: City: State: Zip: Country:

Address: City: State: Zip: Country:

OK Cancel Apply Help

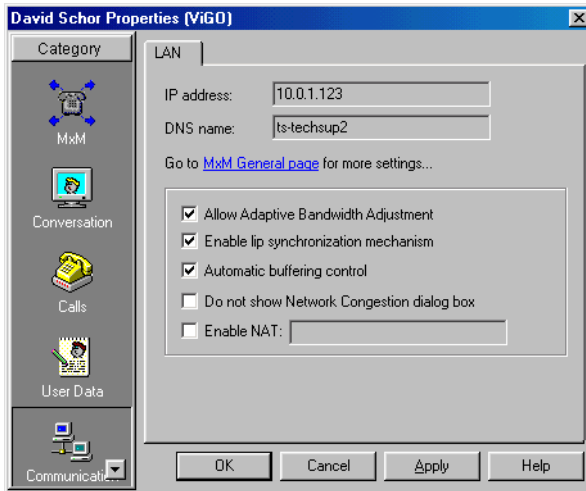
*MeetingPoint End Point - Location Properties*

### A.4 Communication Properties

The Communication Properties dialog box may be used for viewing and controlling various LAN settings of MeetingPoint end points.

#### LAN

This tab contains configuration information for holding video meetings over the connected LAN.



*MeetingPoint End Point - LAN Properties*

<b>IP Address</b>	The selected end point's IP address.
<b>DNS Name</b>	The selected computer's name ( <i>DNS</i> stands for Domain Naming System, which enables computers on a network to be referred to by name in addition to IP Addresses.
<b>Maximum Bandwidth when offline</b>	<p>Select this option to limit the amount of bandwidth that the selected end point may use if it's not logged in to the 5700 VFA. In the list, select a bandwidth.</p> <p>This feature is applicable only to MeetingPoint 4.5 and 4.51 end points.</p>

**Go to 5700 VFA General Page for More Settings**

Click to display the selected user's 5700 VFA General Properties (see "General Properties" on page 6-3).

**Allow Adaptive Bandwidth Adjustment**

Select this option to enable reduction of the allotted bandwidth if the network is congested.

**Enable Lip Synchronization Mechanization**

Select this option to enable adjustment of the video and the audio if they are out of sync with each other (see the *MeetingPoint 4.5 User Guide*, Appendix B, "Monitoring the Conversation State").

**Automatic Buffering Control**

- ☐ Select this option to enable the system to automatically control the amount of buffering required to maintain the consistency of the video and audio transmission. For example, if video packets are delayed for 1 or 2 seconds, the system will automatically synchronize the transmission so that the delay does not disturb the visible video.
- ☐ Deselect this option only if the automatic buffering is not sufficient — for example, if the quality of the video meeting is poor or there is a noticeable delay.

**Do not show Network Congestion dialog box**

Select this option if you do not want to notify the selected end point when its calls are transmitted at a lower bandwidth because of network congestion.

### **Enable NAT**

If your organization uses NAT (Network Address Translation) when communicating with parties in another LAN or WAN, type the external address for the selected user.

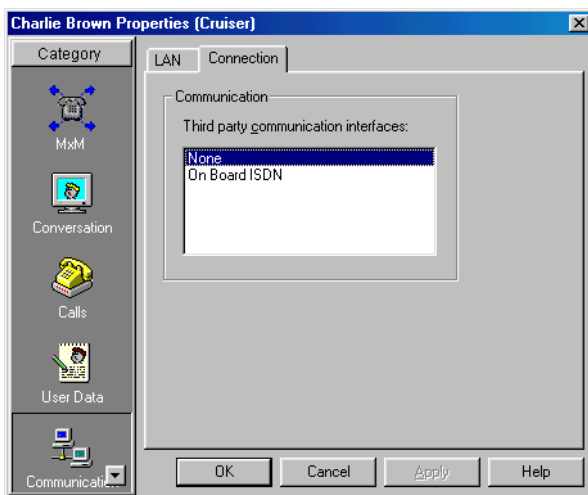
NAT helps protect a LAN from exposure to unwanted traffic by providing one single external address to remote users. NAT uses a system of local and external addresses to hide a LAN's users from other networks. A NAT server translates local parties' addresses to an external address, which is then used to identify the local party to remote parties. Therefore, remote parties use this external address to call the local party, without knowing its actual local address.

This feature is applicable only to MeetingPoint 4.6 end points.

## Connection

In the **Communication** list, select the type of external communication line (LAN or ISDN) the selected system will use. Selecting **None** enables the end point to videoconference only on the connected LAN.

This dialog box is applicable only to VCON Cruisers and MediaConnect 8000s that are set up for ISDN connection.



*MeetingPoint End Point - Connection Properties*

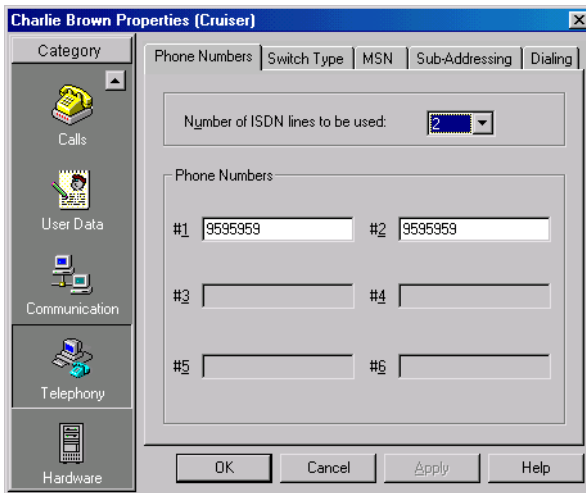
### A.5 Telephony Properties

The Telephony Properties dialog box may be used for viewing and controlling various ISDN settings.

These properties are only applicable only to VCON Cruisers and MediaConnect 8000s that are set up for ISDN connection.

#### Phone Numbers

The **Phone Numbers** tab lists the end point's ISDN phone numbers, if applicable.



*MeetingPoint End Point - Phone Numbers Properties*

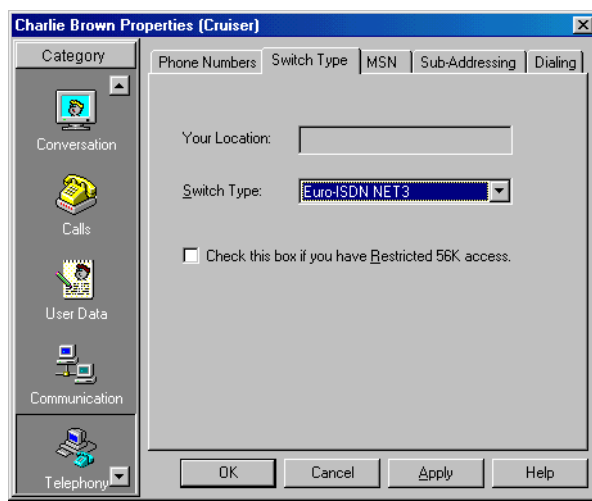
**Number of ISDN Lines to be Used** The number of ISDN lines the selected system uses. The number of available lines depends on the number of BRIs (Basic Rate Interface) on the videoconferencing card. Each BRI supports up to two phone lines of 64 kbps each (56 kbps in Restricted networks):

- ☐ Cruiser 150 - Up to **2** ISDN lines (1 BRI)
- ☐ Cruiser 384/MediaConnect 8000 - Up to **6** ISDN lines (3 BRI)

**Phone Numbers** The ISDN numbers of each line. Do not include your own country's international code or your local area code.

## Switch Type

The Switch Type tab contains information about the ISDN switch type used by the selected end point.



*MeetingPoint End Point - Switch Type Properties*

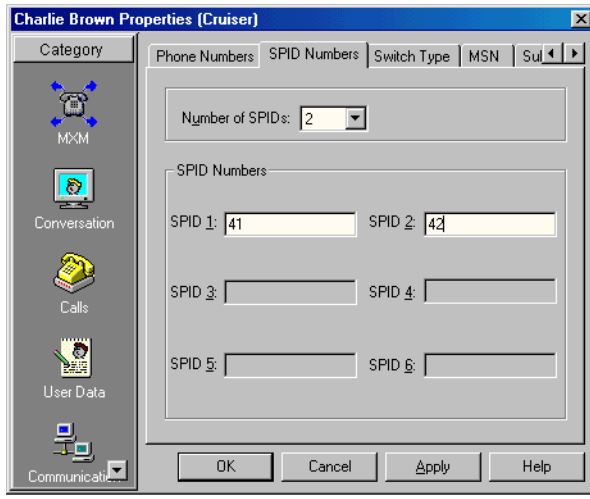
**Your Location** The country in which the selected user is located.

**Switch Type** If applicable, the most common switch type for the user's country appears automatically. If a different switch type is being used (according to your ISDN carrier), select it from the list.

**Check this Box if you Have Restricted 56K Access** In some areas (such as the United States, Canada, Korea and Japan), the main ISDN network is Restricted (data rate of 56K). If applicable to the selected user, select this option.

### SPID Numbers

If the selected ISDN Switch Type supports Service Profile Identifiers (SPID), the **SPID Numbers** tab lists them for the ISDN lines. A SPID number relates to the capabilities of the end point on the ISDN line. This information may be obtained from the end point's ISDN carrier.



*MeetingPoint End Point - SPID Properties*

#### Number of SPIDs

Select the number of SPID numbers that were specified by your ISDN carrier.

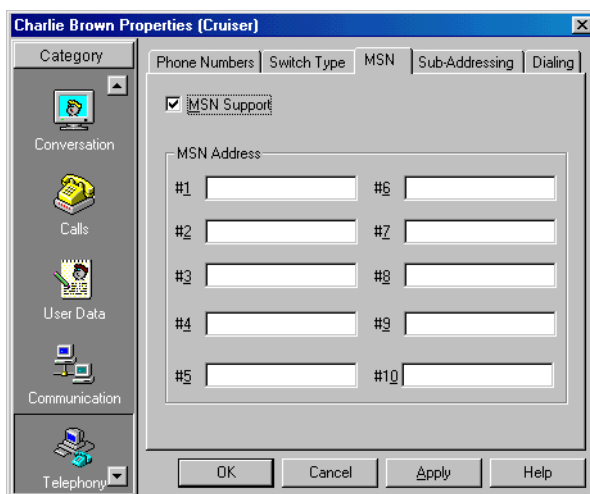
#### SPID Numbers 1,2,3,4,5,6

Type the SPID numbers as your ISDN carrier specifies. If your ISDN provider gave the selected end point only one SPID number, enter it in **SPID 1**.



## MSN

The **MSN** tab is relevant if the connected ISDN network supports Multiple Subscriber Numbering (MSN).

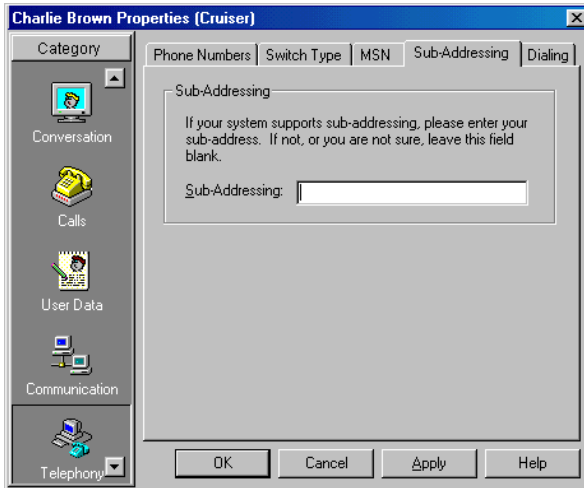


*MeetingPoint End Point - MSN Properties*

Select **MSN Support** to use MSN capabilities. In the MSN Address boxes, type the exact MSN numbers for the end point.

### Subaddressing

Subaddressing is applicable if the selected system shares an ISDN BRI line with other equipment (such as other computers, fax machines, standard telephones, and so on). In such a case, the computer has an additional series of numbers and/or letters added to the end of its phone number.



*MeetingPoint End Point - Subaddressing Properties*

**Sub-Addressing** Phone number followed by an “i” character, and the series of numbers and/or letters making up the subaddress.

## Dialing

The Dialing Information area displays the **Country** that the selected user is in, the area code, and the appropriate digits for dialing an outside line (**External**), a **Long Distance** call, or an **International** call.

**NOTE** If the user needs to dial a specific digit to receive an external line, you must type that digit before the digits required for a long distance or international call.

For example, if you must dial 9 to receive an external line, and then 01 to dial long distance, type **901** in the Long Distance box.

In the **My location** box, enter a description of the user's location, for your information.

The screenshot shows a Windows-style dialog box titled "Charlie Brown Properties (Cruiser)". It has a sidebar on the left with icons and labels: "Conversation", "Calls", "User Data", "Communication", and "Telephony". The "Dialing" tab is selected at the top. The "Dialing Information" section contains a "Country" dropdown menu set to "United States of America", and four input fields: "Area code" (512), "Long distance" (1), "External" (9), and "International" (0). The "Location Information" section has a "My location" text box containing "VCON". At the bottom are four buttons: "OK", "Cancel", "Apply", and "Help".

*MeetingPoint End Point - Dialing Properties*

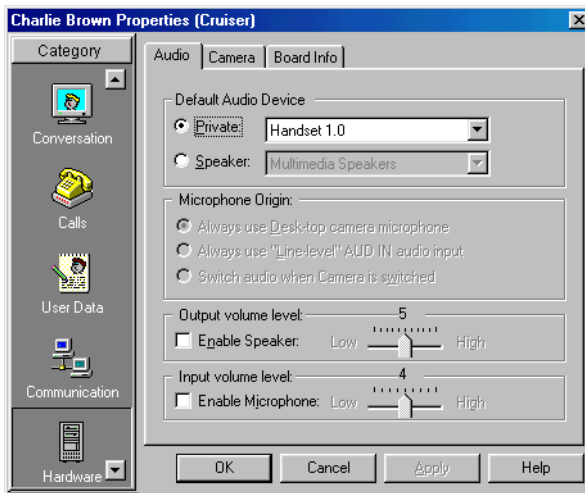
### A.6 Hardware Properties

The Hardware Properties dialog box may be used for viewing and controlling various Audio and Camera settings of MeetingPoint end points.

#### Audio

The Audio settings vary, according to the VCON or Mitel Networks videoconferencing product installed in the selected end point.

#### Escort/Cruiser 150 Audio



*Escort/Cruiser 150 Audio Properties*

#### Default Audio Device

##### Private

Select for listening to audio through the handset. In the **Private** list, click the type of handset being used (default is **Handset 1.0**).

##### Speaker

Select for listening to audio through speakers connected to the computer. In the **Speaker** list, click the type that is most suitable to the speakers installed.

*Microphone Origin*

**Always use Desktop camera microphone** Select to use the camera's built-in microphone at all times.

**Always use "Line-level" AUD IN audio input** Select to use a microphone that's connected to the Line Level Audio In port of the end point's videoconferencing card.

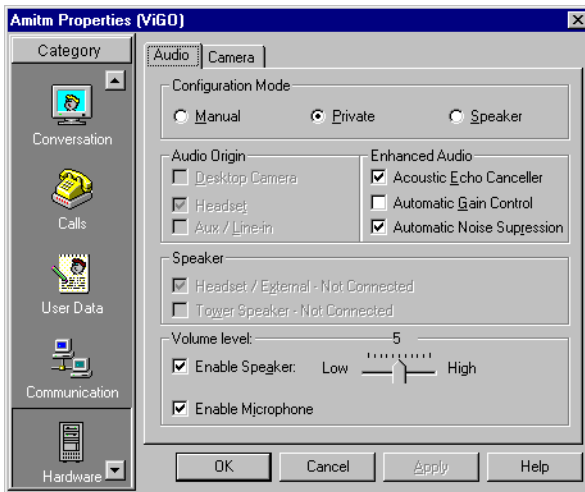
**Switch audio when Camera is switched** Select to always use the microphone of the selected camera. If you switch to a second camera, that camera's microphone is used.

*Volume Level*

**Enable Speaker** Select to control the volume of the selected end point's speaker. Drag the slider accordingly.

**Enable Microphone** Select to control the volume through the selected end point's microphone. Drag the slider accordingly.

### 5750 DV



5750 DV (ViGO) - Audio Properties

#### Configuration Mode

Select a mode for manual or automatic audio settings.

##### Manual

Select to choose audio settings one by one. Select this option if the selected end point has a PTZ camera or other optional hardware.

##### Private

Select to automatically select settings for headset audio.

##### Speaker

Select to automatically select settings for tower audio (if connected) or speaker audio (if a tower is not connected).

#### Audio Origin

Active if Configuration Mode is **Manual**.

Select an available audio input source. The selected end point can speak or send audio through one, two, or all three possible sources.

##### Desktop Camera

Select to use the camera's built-in microphone.

##### Headset

Select to use the supplied headset.

**Aux/Line In** Select to use a microphone that's connected to the Line Level Audio In connector on the 5750 DV rear panel. The source may be from a connected VCR or other external audio device.

### *Enhanced Audio*

**Acoustic Echo Cancellor** Select to prevent the remote party from hearing themselves from their own speakers. This condition occurs if the speaker output is received by the selected end point's microphone and sent back to the remote party.

**Automatic Gain Control** Select to ensure that the remote parties hear the selected end point normally regardless of the speaker's distance from the microphone.

**Automatic Noise Suppression** Select to mute surrounding noise. The result is that the remote parties only hear what the speaker says into the microphone.

### *Speaker*

Active if Configuration Mode is **Manual**.

The selected end point emits audio through one or both of the following devices:

**Tower Speaker** Select to emit audio from the 5750 DV tower's built-in speaker.

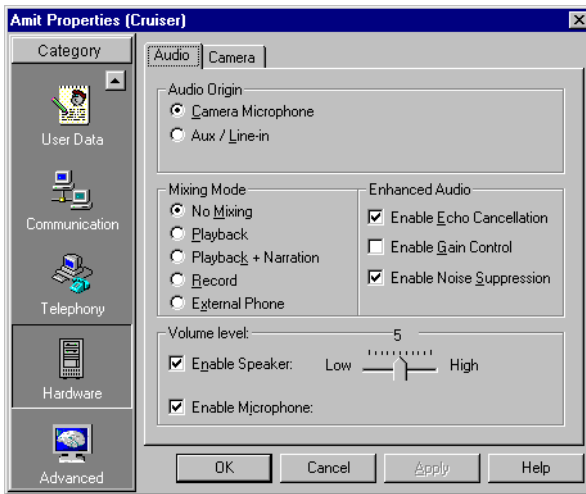
**Headset/External** Select to emit audio from the headset or from another device connected to the Speaker connector on the 5750 DV's side panel.

### *Volume level*

**Enable Speaker** Select to control the volume of the selected end point's speaker. Drag the slider accordingly.

**Enable Microphone** Select to control the volume through the selected end point's microphone.

### Cruiser 384/MediaConnect 8000



*Cruiser 384 - Audio Properties*

#### *Audio Origin*

##### **Tabletop Microphone**

Select to use a tabletop microphone. Applicable to MediaConnect 8000.

##### **Camera Microphone**

Select to use the camera's built-in microphone. Applicable to Cruiser 384.

##### **Aux/Line-in**

Select to use a microphone that's connected to the Line Level Audio In connector on the installed video system board. The source may be from a connected VCR or other external audio device.

If this option is selected, the only available Mixing Mode is **No Mixing**.



*Mixing Mode*

Using the following table as a guide, select the setup that best suits the end point's audio requirements.

<b>Mixing Mode</b> \ <b>Audio Origin</b>	<b>Microphone</b>	<b>Aux/Line in</b>
<b>No Mixing</b>	All parties hear audio only from the microphones.	All parties hear audio from their remote sides and from the connected auxiliary equipment (such as VCR or 2-way speaker).
<b>Playback</b>	All parties hear audio only from a connected VCR.	Not available.
<b>Playback + Narration</b>	The remote party hears audio from both the connected VCR and the microphones.	Not available.
<b>Record</b>	If the video meeting is being recorded, the audio is recorded from the video meeting to the VCR.	Not available.
<b>External Phone</b>	Enable a telephone party (using Plain Old Telephone Service, or POTS) to hear audio and to be heard by you and the other participants.	Not available.

### *Enhanced Audio*

#### **Enable Echo Cancellation**

Select to prevent the remote party from hearing themselves from their own speakers. This condition occurs if the speaker output is received by the local microphone and sent back to the remote party.

#### **Automatic Gain Control**

Select to ensure that the remote party hears the local side normally regardless of the person's distance from the microphone.

#### **Automatic Noise Suppression**

Select to mute surrounding noise. The result is that the remote party only hears what the local person says into the microphone.

### *Volume level*

#### **Enable Speaker**

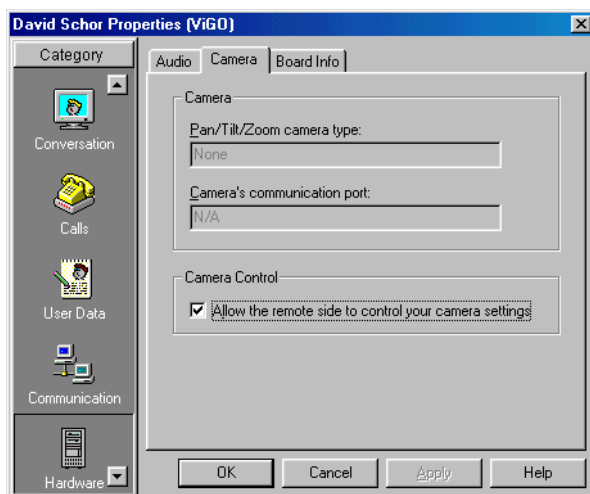
Select to control the volume of the selected end point's speaker. Drag the slider accordingly.

#### **Enable Microphone**

Select to control the volume through the selected end point's microphone.

## Camera

The Pan/ Tilt /Zoom Camera properties are applicable if a Pan/Tilt/Zoom-type (PTZ) camera is connected to the selected system. If a PTZ camera is not used, **None** appears as the PTZ camera type in the dialog box's top list and no communication port is required.



*MeetingPoint End Point - Camera Properties*

### Camera

#### **Pan/Tilt/Zoom camera type**

The manufacturer and/or model of the PTZ camera.

#### **Camera's communication port**

The name of the computer port to which the camera is connected.

### Camera Control

#### **Allow the remote side to control camera settings**

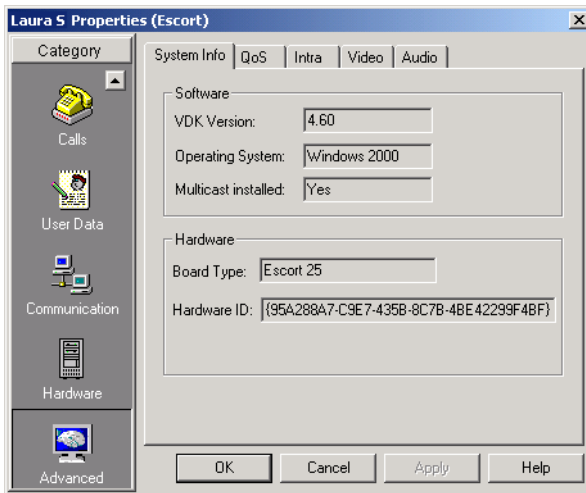
Select to permit a remote party in a video meeting to control the positioning of the selected user's PTZ camera. If a PTZ camera is not used, this option is not relevant.

## A.7 Advanced Properties

The Advanced Properties dialog box may be used for viewing end point system information and controlling various QoS, Intra, advanced Video, advanced Data, and advanced Audio settings of MeetingPoint end points.

### System Info

This tab displays information about the VCON or Mitel Networks videoconferencing system that's installed in the selected end point. If you contact Technical Support (see "" on page v before the Table of Contents) about a problem associated with this end point, include this information with your request.



*MeetingPoint End Point - System Information*

#### Software

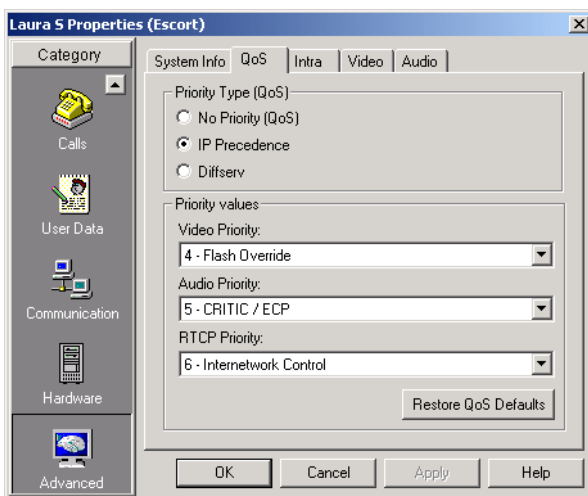
<b>Application Version</b>	Version number of the MeetingPoint application running on the end point's computer.
<b>Operating System</b>	Operating system that's installed on the end point's computer.
<b>Multicast installed</b>	Indicates if the end point's videoconferencing system includes VCON's Interactive Multicast feature.

*Hardware*

- Board Type** Videoconferencing system installed in the end point's computer.
- Hardware ID** Unique identification number for the videoconferencing card's installation. This number is for Mitel Networks Technical Support use.

**QoS**

The **QoS** tab contains properties for controlling the type of Quality of Service that will be used for transmitting packets from the specified MeetingPoint end point.



*MeetingPoint End Point - QoS Properties - Default Settings*

Set QoS properties as follows:

*Priority Type (QoS)*

Select the type of QoS used for transmitting packets during heavy network congestion conditions.

- No Priority** Network transfers packets using normal Best-effort (or Routine) packet transmission.

**IP Precedence** Network gives priority to certain types of bits (video, audio, control) according to the eight levels of IP precedence.

**Diffserv** Network transfers packets according to specific needs of the sending application.

### *Priority Values*

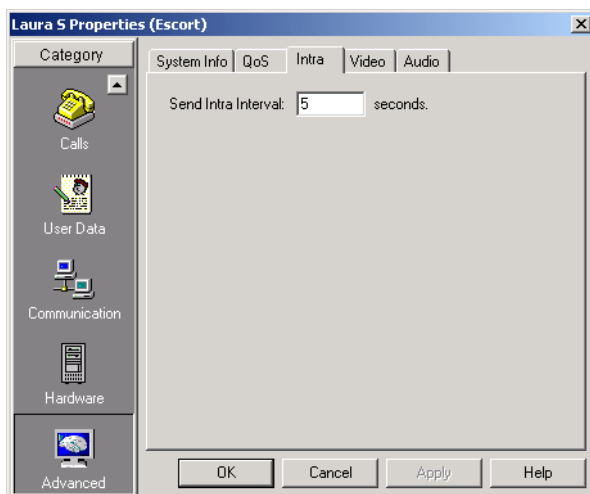
**Video, Audio and RTCP Priority** For each packet type, select an appropriate priority level. The item with the highest priority number will be sent first, the item with the next highest number will be sent second, and so on.

The priority levels vary, depending on whether the selected Priority Type is IP Precedence or Diffserv. For a list of Priority levels, see Appendix C, “QoS Priority Values”.

To reset the Priority default values, click **Restore QoS Defaults**.

## Intras

During videoconferences, MeetingPoint end points send periodic intras (full video frames) in order to synchronize the video display at the receiving party. You may define the interval between the transmission of intras from a specific MeetingPoint end point.



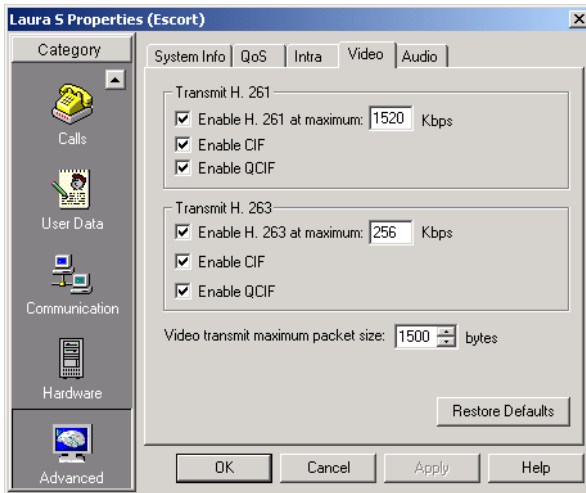
### *MeetingPoint End Point - Intras Properties*

#### **Send Intra Interval**

Type the length of the interval (in seconds) between intra transmissions.

### Advanced Video

The advanced Video tab permits you to enable usage of H.261 and H.263 for video transmission and to control the bandwidth thresholds for switching between the two standards, if applicable.



*MeetingPoint End Point - Advanced Video Properties*

#### *Transmit H.261/H.263*

##### **Enable H.261/ H.263 at Maximum**

Select to enable the use of the specified video format coding from the specific MeetingPoint end point. In the box, type the maximum transmission rate at which the specific coding may be used.

For example, for H.263 the default maximum transmission rate is 256 kbps. At higher rates, the H.263 coding is not available.

##### **Enable CIF**

CIF (Common Interchange Format) provides a higher resolution at a lower frame rate. If a higher bandwidth is available, CIF provides excellent video quality.

##### **Enable QCIF**

QCIF (Quarter Size Common Interchange Format) should be used if only low bandwidth is available, or if the remote party in a videoconference does not support CIF.



**Video Transmit maximum packet size**

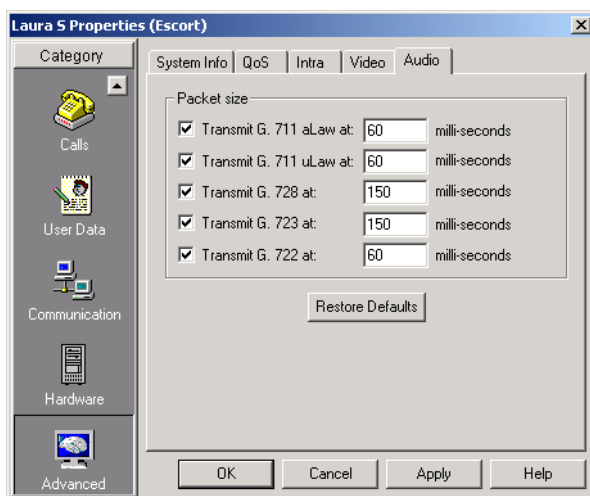
Enter the maximum video packet size (in bytes) which the specified end point may transmit.

To reset the advanced Video default values, click **Restore Defaults**.

**Advanced Audio**

In the **Audio** tab, select the supported audio algorithms for transmitting audio from the specified end point. In addition, you can enter the audio transmit speed for all algorithms supported by the end point.

To reset the advanced Audio default values, click **Restore Defaults**.



*MeetingPoint End Point - Advanced Audio Properties*



## ***B 5760 VIDEOCONFERENCING APPLIANCE END POINT PROPERTIES***

From the 5700 VFA Administrator application, the administrator may view and control various properties of 5760 VC end points. In the 5760 VC Properties dialog box, the properties are divided into various categories:

<b>5700 VFA</b>	Properties defining how the 5760 VC operates as parts of the 5700 VFA videoconferencing network (see “Setting End Point 5700 VFA Properties” on page 6-3).
<b>Network</b>	LAN, H.323, QoS, Phone Numbers, Switch Type, SPID Numbers
<b>Video</b>	Dual Monitor, Far End Camera Control
<b>Audio</b>	Audio Input, VCR Audio Mix, automatic adjustments
<b>Options</b>	General, Version

---

**NOTE** Properties cannot be changed while the 5760 VC is engaged in a videoconference.

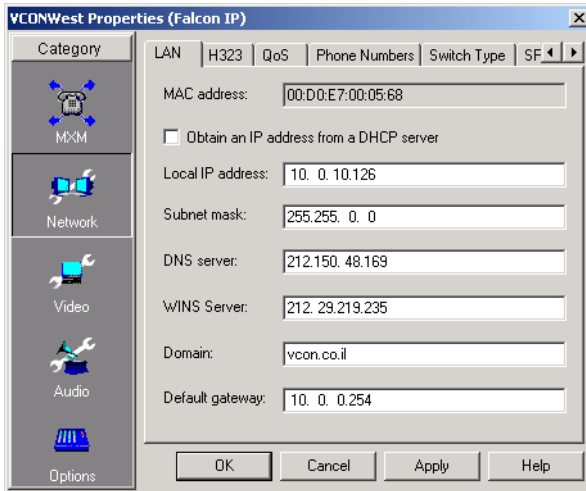
---

## B.1 Network Configuration

This section explains how to set up the 5760 VC network and connections configuration. Network options may be edited at any time.

### LAN Connection and Registration

The **LAN** tab includes the 5760 VC address and information about its connection to the LAN (Local Area Network).



*5760 VC (Falcon IP) Lan Properties*

#### Obtain an IP Address from a DHCP server

Select to enable 5760 VC to receive its network configuration from the LAN's DHCP server and enter it automatically in the **LAN** tab.

If this option is not selected, the LAN properties must be entered manually.

#### IP Address

IP address of the 5760 VC.

If 5760 VC receives an address automatically, it is a temporary address which is liable to be changed when the network's users' IP addresses are updated periodically.

If you manually enter an IP address here, the address remains permanently.

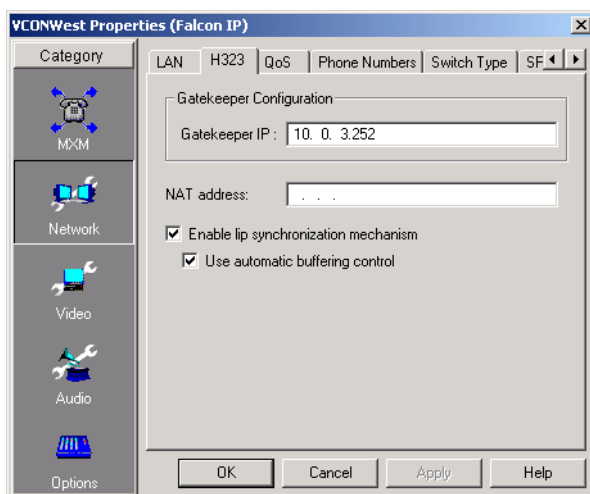
#### Subnet Mask

Your company's subnet mask.

<b>DNS Server &amp; WINS Server Domain</b>	IP Addresses of the DNS server and the WINS server. Registering with these servers enables 5760 VC to translate names to IP addresses.
<b>Default Gateway</b>	DNS domain name of your company (for example, <b>yourcompany.com</b> ).
	IP address of the network's Gateway router. The gateway helps 5760 VC send and receive calls between subnets.

### H.323 Management

In the **H.323** tab, you can define how the 5760 VC operates within a managed H.323 videoconferencing network.



*5760 VC (Falcon IP) H.323 Properties*

**Gatekeeper IP** Enter the IP address of the gatekeeper which manages the 5760 VC. This may be either the 5700 VFA's gatekeeper or another one used by your organization.

---

**NOTE** If the 5760 VC is logged in to a non-Mitel Networks gatekeeper, the 5760 VC status in the Main View is "Logged In to Management Server."

---

### **NAT IP**

If your organization uses NAT (Network Address Translation) when communicating with parties in another LAN or WAN, type the external address for your computer.

NAT helps protect a LAN from exposure to unwanted traffic by providing one single external address to remote users. NAT uses a system of local and external addresses to hide a LAN's users from other networks. A NAT server translates local parties' addresses to an external address, which is then used to identify the local party to remote parties. Therefore, remote parties use this external address to call the local party, without knowing its actual local address.

### **Enable Lip Synchronization Mechanism**

Select this option to synchronize the audio and video of a LAN conversation.

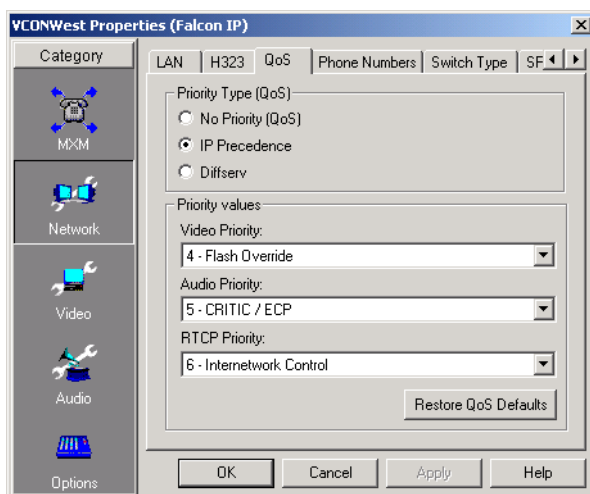
### **Automatic Buffering Control**

Buffer Control adjusts the video streams for the available dynamic bandwidth of IP networks.

Select this option to make the buffer control automatic. Deselect it to make it adjustable during LAN conversations.

## QoS

The **QoS** tab contains properties for controlling the type of Quality of Service that will be used for transmitting packets from the 5760 VC.



*5760 VC (Falcon IP) QoS Properties*

### *Priority Type (QoS)*

Select the type of QoS used for transmitting packets during heavy network congestion conditions.

- No Priority**      Network transfers packets using normal Best-effort (or Routine) packet transmission.
- IP Precedence**      Network gives priority to certain types of bits (video, audio, control) according to the eight levels of IP precedence.
- Diffserv**      Network transfers packets according to specific needs of the sending application.

### *Priority Values*

#### **Video Priority** **Audio Priority** **RTCP Priority**

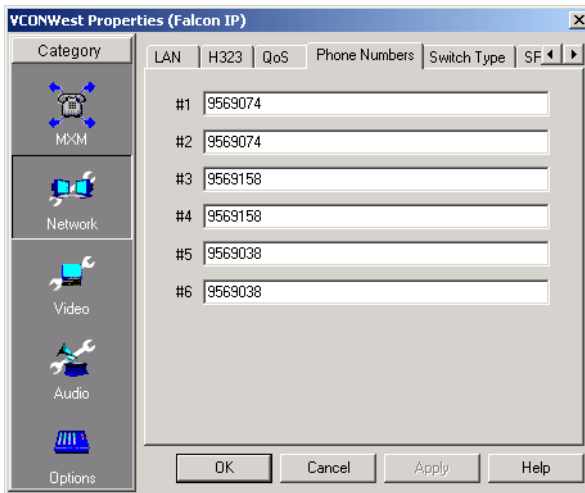
For each packet type, select an appropriate priority level. The item with the highest priority number will be sent first, the item with the next highest number will be sent second, and so on.

The priority levels vary, depending on whether the selected Priority Type is IP Precedence or Diffserv. For a list of Priority levels, see Appendix C, “QoS Priority Values”.

To reset the Priority default values, click **Restore QoS Defaults**.

### **Phone Numbers**

The **Phone Numbers** tab lists the 5760 VC’s ISDN numbers of each line. Do not include your own country’s international code or your local area code.

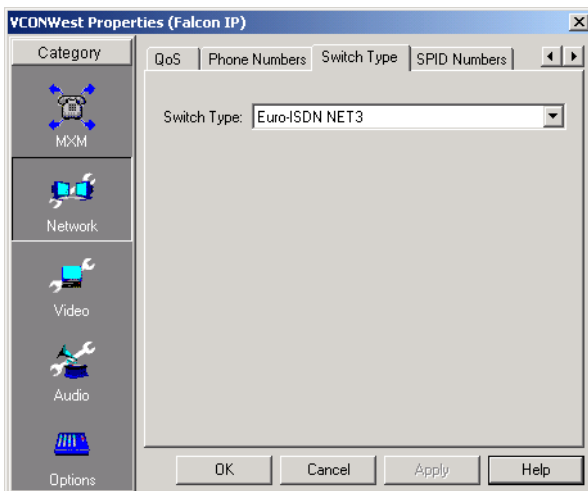


*5760 VC (Falcon IP) ISDN Phone Numbers*



## Switch Type

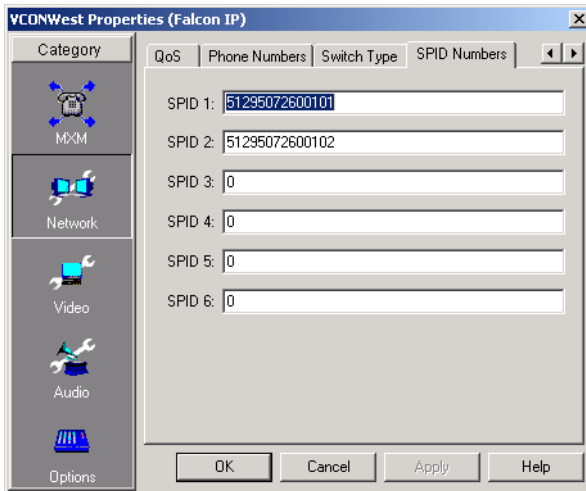
In the **Switch Type** tab, the ISDN switch type used by the 5760 VC appears. If a different switch type is being used (according to the ISDN carrier), select it from the list.



*5760 VC (Falcon IP) ISDN Switch Type*

## SPID Numbers

If the selected ISDN Switch Type supports Service Profile Identifiers (SPID), this tab lists them for the ISDN lines. A SPID number relates to the capabilities of the end point on the ISDN line. This information may be obtained from the 5760 VC's ISDN carrier.

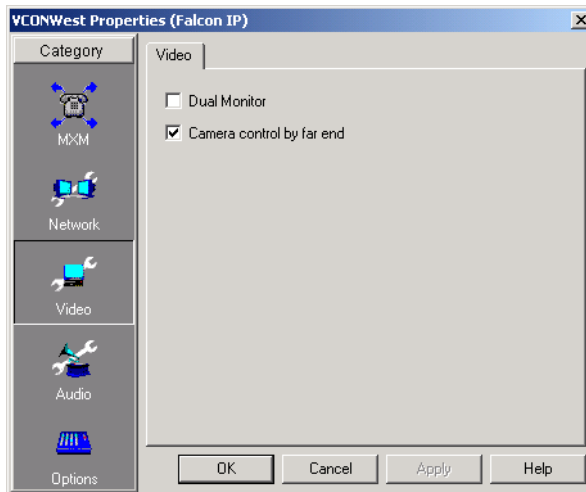


*5760 VC (Falcon IP) SPID Numbers*

**SPID numbers** Type the SPID numbers as your ISDN carrier specifies. If your ISDN provider gave you only one SPID number, enter it in SPID 1.

## B.2 Video Properties

The **Video** tab provides options for controlling the display of video in the 5760 VC.



*5760 VC (Falcon IP) Video Properties*

### Dual Monitor

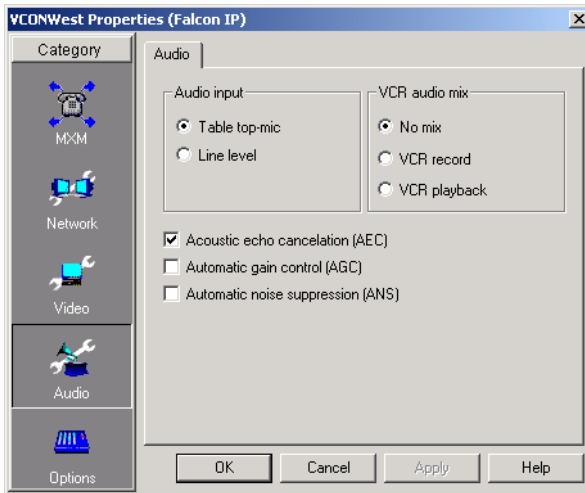
5760 VC supports the use of two monitors to display both parties on full screens during videoconferences. One monitor displays remote video and the other monitor displays local video. Select this option only if two TV monitors are connected.

### Camera Control by Far End

Far End Camera Control (FECC) enables the remote party to control the local party's camera, so that they see views that are convenient for them. FECC provides control over the pan/tilt/zoom positioning and the adjustment of brightness, color, contrast and hue.

### B.3 Audio Properties

In the **Audio** tab, you can select and activate various audio properties in the selected 5760 VC.



*5760 VC (Falcon IP) Audio Properties*

#### *Audio input*

##### **Tabletop Mic**

To use the supplied tabletop microphone or other audio device connected to the 5760 VC's MIC connector, select Tabletop Mic.

##### **Line Level**

To use the microphone or audio device (such as VCR, mixer, etc.) connected to the 5760 VC's VCR AUD IN connector, select Line Level.

#### *VCR audio mix*

Mixing options determine how the audio from a VCR connected to the 5760 VC is mixed and sent to the remote party or recorded to a VCR cassette. Select the appropriate VCR Audio Mix option:

##### **No Mix**

Both parties hear each other's audio only.

##### **VCR Record**

Both parties hear each other's audio while a VCR records both of them.

**VCR Playback** Both parties hear each other's audio and the audio from a video cassette.

5760 VC supports advanced features that improve audio quality for different types of videoconferencing environments.

**Acoustic Echo Cancellation (AEC)** Select to prevent the remote party from hearing themselves from their own speakers (selected by default). This condition occurs if the speaker output is received by the selected end point's microphone and sent back to the remote party. You should deselect AEC only if an external AEC device is in use.

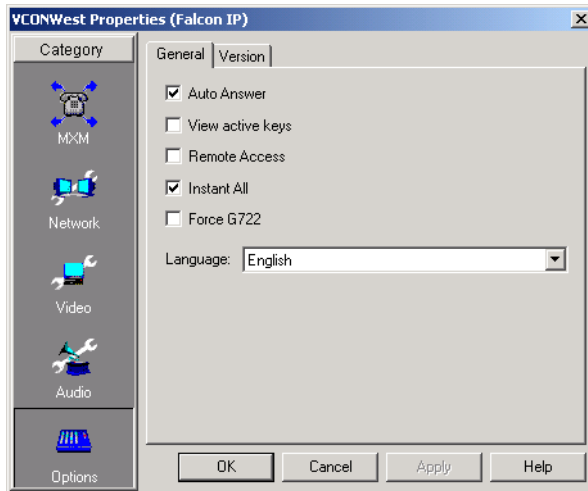
**Automatic Gain Control (AGC)** Select to ensure that the remote parties hear the selected end point normally regardless of the speaker's distance from the microphone. AGC improves audio for big rooms.

**Automatic Noise Suppression (ANS)** Select to mute surrounding noise. The result is that the remote parties only hear what the speaker says into the microphone.

## B.4 Options

### General Options

The **General** Options tab contains several options for defining how the selected 5760 VC operates.



#### *5760 VC (Falcon IP) General Options*

- |                         |   |
|-------------------------|---|
| <b>Auto Answer</b>      | Select to enable the selected 5760 VC to accept all incoming calls automatically (unless it is already engaged in a call).  |
| <b>View Active Keys</b> | Select to display a graphic of the remote control on the selected 5760 VC's monitor. The graphic shows which functions are available and their respective keys at any given time.   |
| <b>Remote Access</b>    | Select to enable remote management (through a Web browser) of the selected 5760 VC's configuration from another terminal.<br><br>This setting does not affect management through the Property dialog box in the 5700 VFA Administrator. |
| <b>Instant All</b>      | Select to enable the selected 5760 VC to dial all ISDN numbers of a remote party at the same time and then synchronize. This may help speed up the connection.  |

**Force G.722** Select to enable the selected 5760 VC to transmit audio according to G.722 standard, producing high audio quality. The remote device must also support G.722. If the remote device is also 5760 VC, this option must also be selected on it.

**Language** Select the language of the selected 5760 VC's interface. All menus and options appear in the selected language.

### Version

The **Version** tab displays hardware and software version information for the 5760 VC. If you contact Mitel Networks Technical Support about this unit, provide the information on this page.

If the 5760 VC model changes (among LAN only, 1-BRI, 3-BRI models), enter the new Software Key that you received from your distributor.

The screenshot shows a window titled "VCONWest Properties (Falcon IP)". On the left is a "Category" sidebar with icons for MxM, Network, Video, Audio, and Options. The "Version" tab is selected, showing the following fields:

Software Version:	0200.M07.D29.H15
Software Key:	V63186F41VC
Hardware Version:	84.35
Hardware Serial:	V0250167

At the bottom are buttons for OK, Cancel, Apply, and Help.

*5760 VC (Falcon IP) Version Information*





## **C    QoS PRIORITY VALUES**

The tables in this appendix list the available priority values for Quality of Service (QoS) configuration. The 5700 VFA Administrator application supports QoS configuration of VCON MeetingPoint 4.5 (and higher) and Mitel Networks 5760 VC end points.

### **C.1    IP Precedence Values**

<b>Value</b>	<b>Description</b>
<b>0</b>	Routine
<b>1</b>	Priority
<b>2</b>	Immediate
<b>3</b>	Flash
<b>4</b>	Flash Override
<b>5</b>	Critic/ECP
<b>6</b>	Internetwork Control
<b>7</b>	Network Control

**C.2 DiffServ Values**

<b>Value</b>	<b>Description</b>
<b>000000</b>	Probability Timely Forwarding 0
<b>001000</b>	Probability Timely Forwarding 1
<b>010000</b>	Probability Timely Forwarding 2
<b>011000</b>	Probability Timely Forwarding 3
<b>100000</b>	Probability Timely Forwarding 4
<b>101000</b>	Probability Timely Forwarding 5
<b>110000</b>	Probability Timely Forwarding 6
<b>111000</b>	Probability Timely Forwarding 7
<b>101110</b>	Expedited Forwarding
<b>001010</b>	Forward Class 1 Low Drop
<b>001100</b>	Forward Class 1 Mid Drop
<b>001110</b>	Forward Class 1 High Drop
<b>010010</b>	Forward Class 2 Low Drop
<b>010100</b>	Forward Class 2 Mid Drop
<b>010110</b>	Forward Class 2 High Drop
<b>011010</b>	Forward Class 3 Low Drop
<b>011100</b>	Forward Class 3 Mid Drop
<b>011110</b>	Forward Class 3 High Drop
<b>100010</b>	Forward Class 4 Low Drop
<b>100100</b>	Forward Class 4 Mid Drop
<b>100110</b>	Forward Class 4 High Drop

## **D    *USING ACCORD™ MGC WITH THE 5700 VFA***

The Accord™ MGC operates under a different configuration model than most other MCUs being used in the videoconferencing sector. This appendix provides instructions for setting up the MGC's configuration for operation in conjunction with the 5700 VFA. In addition, this appendix includes instructions for setting up an Accord Meeting Room for ad-hoc videoconferences.

---

**NOTE** This appendix only provides information directly related to the integrated operation of the Accord MGC with the 5700 VFA. For additional information about using the MGC, see the MGC's accompanying user documentation.

---

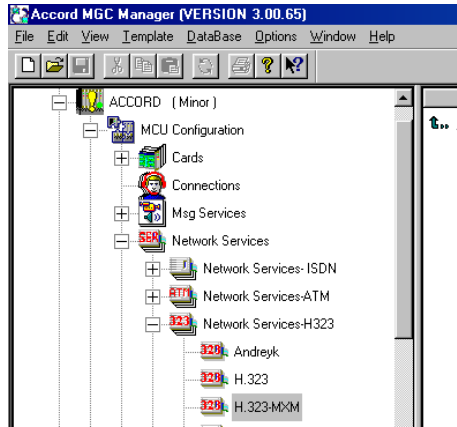
### ***D.1    MGC Configuration***

#### **Network Services Configuration**

Create a new Network Service, or if you're editing an existing configuration, choose the one that you want to change.

➤ **To set up Network Service properties**

1. Run the Accord MGC management application.
2. In the left pane, browse through the tree to **MCU Configuration**, **Network Services**, and **Network Services-H.323**.



*Browsing to Network Services-H.323*

3. Create a new Network Service or choose the existing one allocated for use with your 5700 VFA.
4. In the **Setting** tab, enter the following information:

<b>Subnet Mask</b>	IP subnet mask used by the connected network.
<b>Default Router</b>	IP address of the default router used by the connected network.
<b>Gatekeeper</b>	Select <b>External</b> . The 5700 VFA is an external gatekeeper in relation to the MGC.
<b>External</b>	IP address of the 5700 VFA.
<b>Port</b>	<b>1719</b> - standard RAS port.
<b>Prefix</b>	Prefix that must be dialed in addition to all of the MGC's Meeting Rooms' directory numbers (or "node number"). This number must be within the permitted directory number range (see "Dial Plan" on page 5-5) and be the same number of digits.

For example, if the prefix is "1234" and the Meeting Room's directory number is 1095, then a user must dial "12341095" to enter the videoconference.

5. The **Span** tab displays a list of H.323 cards in the MGC. You must enter a Circuit ID and unique alias for each H.323 card. Click the plus (+) button to add a new card configuration.

6. Enter the following information:

**Circuit ID** Unique number for the H.323 card in the MGC.

**IP Address** IP address for the H.323 card.

**Alias** Enter one H.323 ID alias for this card (must be unique in the 5700 VFA).

7. Click **OK**.

**Network Service Properties**

Setting Span

Service Name: H.323-MXM

Service Type: Ethernet

Network

Subnet Mask: 255.255.0.0

Gatekeeper

Type: External

External: 10.0.10.248

Port: 1719

Prefix: 1234

Routers

Default Router: 10.0.0.254

Router IP	Remote IP	Remote Type

OK Cancel Apply Help

*Network Services - Setting Configuration for 5700 VFA*

**H323 SPAN**

Circuit ID:  IP Address:

Communication Mode:

**Alias**

Alias 1: <input type="text" value="card1"/>	Type: <input type="text" value="H323 ID"/>
Alias 2: <input type="text"/>	Type: <input type="text" value="H323 ID"/>
Alias 3: <input type="text"/>	Type: <input type="text" value="H323 ID"/>
Alias 4: <input type="text"/>	Type: <input type="text" value="H323 ID"/>
Alias 5: <input type="text"/>	Type: <input type="text" value="H323 ID"/>

OK Cancel

*Adding a New H.323 Card Configuration*

## H.323 Card Configuration

After setting up the Network Services configuration, assign the appropriate Circuit IDs to the H.323 cards in the MGC.

### ➤ To assign a Circuit ID to an H.323 card

1. In the left pane, open the Cards object. Select the slot of the H.323 card.
2. Right-click the card, and then click Properties. The Card Settings dialog box appears.
3. In the **H.323 Network Parameters** tab, enter the Circuit ID for this card.
4. Click **OK**.

---

**NOTE** Following Network Services and H.323 card configuration, make sure that the Circuit IDs, IP addresses, and Service Type correspond in both configurations.

---

**Card Settings**

Common Parameters | **H323-Network Parameters** | LAN Gatekeeper | LAN

H323-Network Parameters

Ethernet Span

Circuit ID :  ☐ Null Configuration

Service Name :

IP Address :  .  .  .

Stack Controller Software Version:

RTP processors Software Version :

XILINX Software Version:

STIC Software Version:

OK Cancel Apply

*H.323 Card Network Parameters*

## D.2 Adding an Accord Meeting Room

A Meeting Room is a hunting group of MCU services provided by the Accord MGC or other Accord hunting groups. A multipoint videoconference managed by the MGC must be associated with a Meeting Room.

If you will use the MGC to manage ad-hoc videoconferences, you must define this ability in a Meeting Room configuration.

---

**NOTE** To set up Meeting Rooms in the MGC, see the Accord MGC user documentation

---

### ➤ To add an Accord Meeting Room to the Main View

1. Right-click the 5700 VFA object, point to **Add Node**, and click **New Accord Meeting Room**. The New Accord Meeting Room wizard appears.

2. Change properties according to your multipoint videoconferencing specifications, or keep the default settings. When you finish each page of the wizard, click **Next**. For explanations about the various properties, see the following section.
3. When you finish the last page, click **Finish**.



### D.3 Setting Meeting Room Properties

In step 2 of “To add an Accord Meeting Room to the Main View” in the previous section, the wizard provided the chance to change various Meeting Room properties. This section describes these properties.

#### General Properties

The **General** page contains identity information of the new Meeting Room.

#### *Accord Meeting Room - General Properties*

In the **General** page, enter the following information:

<b>Directory Number</b>	Assign a directory number for the Meeting Room.
<b>Description</b>	Type an identity for the Meeting Room. This description does not affect the operation of the system.

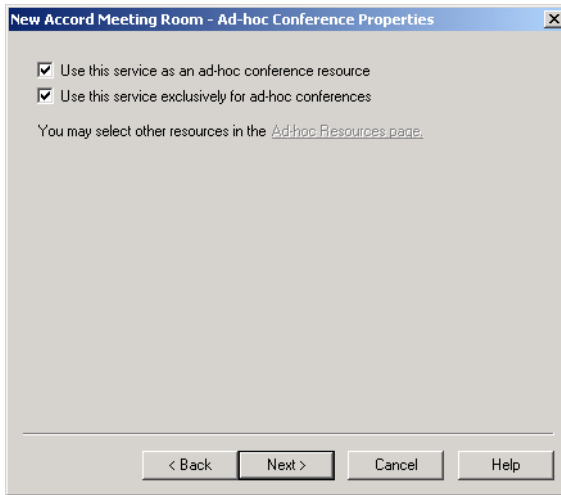
## Ad-hoc Conference Properties

A point-to-point conference becomes an ad-hoc conference when additional end points are "invited" by one of the parties and they join the session. In the **Ad-hoc Conference** page, you can make this Meeting Room available for use in ad-hoc conferences. This availability may be in addition to basic multipoint videoconferencing or exclusive for ad-hoc conferences.

---

**NOTE** Expansion to ad-hoc videoconference is available only for licensed users of the Conference Control Option. If you want to add this option to your 5700 VFA, please contact your local Mitel Networks distributor.

---



*Accord Meeting Room - Ad-hoc Conference Properties*

Enable ad-hoc videoconferencing using this Meeting Room as follows:

<b>Use this service as an ad-hoc conference resource</b>	Select to make this Meeting Room available for use when expanding to an ad-hoc videoconference.
--	---

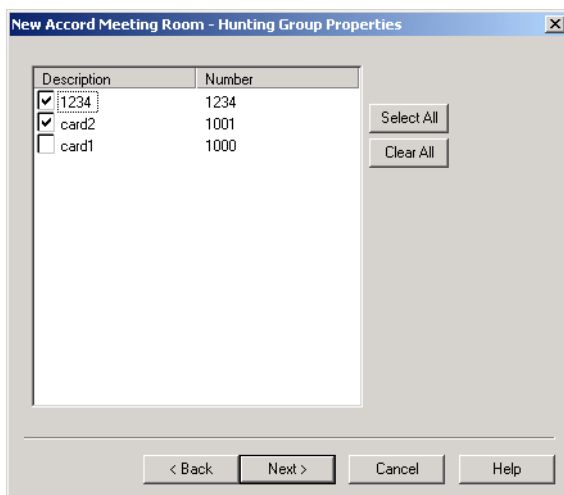
<b>Use this service exclusively for ad-hoc conferences</b>	Select to make this Meeting Room available only for use in ad-hoc videoconferences, and unavailable for point-to-point sessions.
--	--

**Ad-hoc****Resources page**

Click this link to open the 5700 VFA's Ad-hoc Resources Properties, in which you can also select which Meeting Rooms may be used for ad-hoc videoconferences (see “Ad-hoc Resources” on page 5-13).

## Hunting Group Properties

In the Hunting Group Properties page, you can place specific H.323 cards (installed in the MGC) and/or other Accord hunting groups in the hunting group. Only selected cards may manage multipoint videoconferences that require this Meeting Room's services. The cards may be identified either by their prefixes or by their aliases.



*Accord Meeting Room - Hunting Group Properties*

Select any number of cards from the list to be in the hunting group.

- To place all cards in the hunting group, click **Select All**.
- To clear all the selections, click **Clear All**.

### LDAP Properties

The **LDAP** page provides information about the Meeting Room's registration, if applicable, in an LDAP (Lightweight Directory Access Protocol) server. For information about nodes' LDAP Properties, see "LDAP Properties" on page 6-13.

---

**NOTE** A Meeting Room that's defined exclusively for ad-hoc videoconferences does not appear in the online directory.

---

### Additional ID Properties

In addition to its directory (E.164) number, a Meeting Room may have other addresses that may be used to dial it, such as additional E.164 addresses and/or H.323 Alias. In the **Additional ID** page, you may enter these, if applicable. For more information about adding Additional IDs, see "Additional IDs Properties" on page 6-14.

## ***E    UPGRADING 5760 VIDEOCONFERENCING APPLIANCE SOFTWARE***

This appendix explains how to upgrade your 5760 VC to the latest software version through the 5700 VFA Administrator application. The utility is called the 5760 VC Upgrade program.

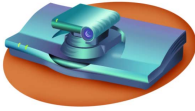
The latest software version is supplied by your local Mitel Networks distributor.



**CAUTION** Make sure that you do not restart a 5760 VC until the instructions specifically tell you to do so.

- ☐ Before you begin an upgrade, make sure that you initiate it during a quiet period of the network. Heavy network traffic may interfere with the procedure and cause upgrade failures.
- ☐ Make sure that the possibility of electrical failure is at a minimum.
- ☐ Make sure that the computer from which the upgrade will run (same as the 5700 VFA Administrator application's computer) fills the following requirements:
  - Windows 95, 98, 2000, ME, or NT. If it uses Windows NT, Service Pack 5.0 is necessary as well.
  - Microsoft Internet Explorer 5.0 or later must be installed.
  - It should not run other programs at the same time as the 5760 VC upgrade program.
- ☐ Decide whether the upgrade process should begin automatically, or if the 5760 VC user should be able to accept or reject it before it begins.
  - If the 5760 VC systems will be upgraded when the users are not working, the procedure should be automatic.
  - If the upgrade is going to take place during working hours, you might require user approval, to prevent disturbing an important call.

## E.1 Running the Upgrade Program



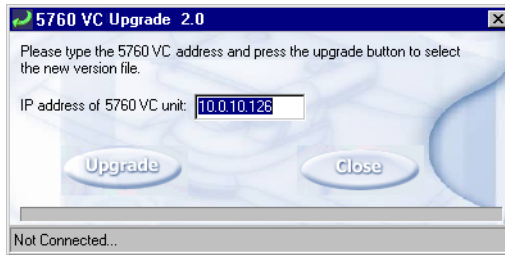
*5760 VC User Instructions*



*5700 VFA Administrator User Instructions*

1. Set up 5760 VC for remote access (**Menu/Options**; see page 11-1 of the *5760 VC User's Guide*).

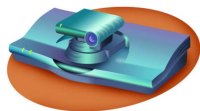
1. Click **Start/Programs/5760VCA Tools/5760VCA Upgrade**.  
The upgrade program starts.



*5760 VC Upgrade Program Window*

1. To see the IP address of the 5760 VC unit, press <Status> and open the **LAN** tab.

2. In the **IP Address** box in the 5760 VC Upgrade program window, enter the IP address of the 5760 VC.
3. Click **Upgrade**.
4. Browse the CD-ROM or the location folder you received and double-click the zip file containing the new version. When asked to confirm the upgrade, click **Yes**.



*5760 VC User Instructions*



*5700 VFA Administrator User Instructions*

The 5760 VC monitor displays a progress bar after the upgrade begins.

The upgrade process begins. The bar at the bottom of the window shows the actual progress of the upgrade.

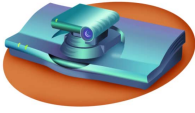


*Version Update Progress Bar on the 5760 VC TV Monitor*



**CAUTION** The entire procedure takes about 30 minutes. Do not try to initiate videoconferences with the 5760 VC or change its configuration during this process. Do **not** restart 5760 VC until the upgrade process is complete!

## E.2 Applying the New Upgrade

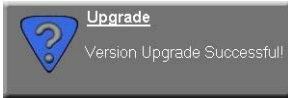


*5760 VC User Instructions and Screens*



*5700 VFA Administrator User Instructions*

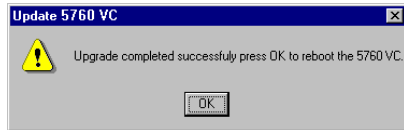
1. When the progress bar shows that Step 4 of 4 is complete, wait for the remote PC user to inform you that the upgrade is complete, and then restart 5760 VC.
2. When the system restarts, a message appears.



Press <OK> to accept the upgrade.

5760 VC now transfers your old configuration parameters and Phone Book to the new version and starts the Post-Upgrade procedures.

1. When the process is complete, a message appears, saying that the upgrade is complete.



Click **OK**. Restart the 5760 VC unit, or tell the 5760 VC user to restart it.

2. Wait for confirmation from the 5760 VC user that upgrade was successful; that 5760 VC passed through the Post-Upgrade procedures without problems and that the Guide Screen opened.



**CAUTION** If you do not press <OK> now on the 5760 VC unit, the system will restart in Installer Mode (see “Installer Mode” on page E-5).



### E.3 Post-Upgrade Procedures

The upgrade process from the 5700 VFA Administrator application has been successfully completed. Now 5760 VC begins the Post-Upgrade procedures.

After you press the OK button on the remote control, a message appears on the TV monitor.



Do not turn off, restart, or use 5760 VC at this point. Wait a few minutes until the next message appears.



5760 VC then restarts itself and runs through the usual opening process. Wait until the 5760 VC's Guide Screen appears.

After the Guide Screen appears, 5760 VC is ready for use!

### E.4 Installer Mode

If for some reason the upgrade was not successfully completed, 5760 VC enters Installer Mode after it restarts. This mode allows you to rerun the upgrade process until it is successfully completed. You will know that you are in Installer Mode because the TV monitor displays a different background.



*Installer Mode Background*

A possible reason for unsuccessful installation is a mistaken IP address for the 5760 VC.

1. Press <Menu>. The Set Network - LAN dialog opens.
2. Keep the same IP address or assign another static IP address. Press <OK>.
3. Rerun the upgrade process from the 5760 VC Upgrade Program. Be sure to enter the correct IP address for the 5760 VC.

### E.5 Software Key Upgrade

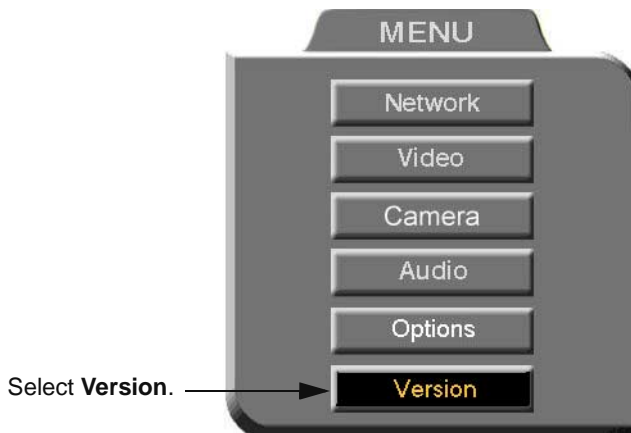
To upgrade from 5760 VC Administrator Model 1 to Model 3, contact your local reseller for details on purchasing a software key.

#### ► To change Models with the software key

1. Contact your local Mitel Networks reseller with a request to purchase the software key for a Model upgrade.

After Mitel Networks processes your order, you will receive the new software key.

2. Turn on 5700 VFA Administrator and press <Menu>. The Menu opens.



*5760 VC Menu*

3. Select **Version**. The Version dialog box appears.
4. Press the down arrow key until **Software Key** is highlighted.
5. Enter the software key that you received.
6. Press <OK> to apply the changes and then restart 5700 VFA Administrator.

## ***F    SETTING UP THE 5020 IP TELEPHONE TO WORK WITH 5700 VFA***

The Mitel Networks™ 5700 Voice First Application (VFA) server acts as a gateway for video terminals with each terminal consisting of a camera, video screen and telephone. Video transmission is handled through the 5700 VFA server while audio transmission is performed by the Mitel Networks 5020 IP telephone. The 5700 VFA monitors the call progress of all registered 5020 IP phones and notifies any sets that are involved in calls using videoconferencing. To do so, the 5700 VFA requires the 5020 IP phone's Directory Number in order to get the appropriate call state information. In turn, the 5020 IP phones require the 5700 VFA's IP address in order to initiate communication to the server.

For the two to interact properly, you must:

1. Manually program the IP address of the 5700 VFA server on the 5020 IP phone. One of the programmable keys on the phone will be defined as the "VIDEO" button used for the audio portion of videoconferencing calls through the set.
2. Register the 5020 IP phone with the VFA Administrator.

---

**NOTE** 5020 IP Phones programmed with a "VIDEO" key will reserve that key for videoconferencing. You cannot re-program the key either through the Mitel Networks™ 3300 Integrated Communications Platform's (ICP) Desktop Tool or using the Superkey.

---

### ***F.1    Programming A 5020 IP Phone To Interact With A 5700 VFA***

The purpose of this procedure is to store the static IP address of the 5700 VFA server into a 5020 IP phone's non-volatile (flash) memory. This will program the phone so that the "Video" function is permanently assigned to a specified key.

---

**NOTE** Before beginning this procedure, obtain the IP address of the server on which the 5700 VFA is running.

---

### To program "Video" settings to a 5020 IP phone:

1. Unplug the power cord from the set to ensure it is off.
2. Hold down the top-right programmable key (as indicated in the image below) while plugging the power back in.

*Ensure you hold down the "Video" key for at least three seconds while the phone powers up.*



*Mitel Networks 5020 IP Phone indicating key to be used for "Video"*

---

**NOTE** While the designation card provided indicates that the top-right key should be used for "Video", any of the programmable keys on the 5020 IP phone may be used for this function. To avoid confusion, it is recommended that the top-right key be used so that the programming of the key is consistent with the designation card.

---

3. Press '#' when the following display appears:

```
SET VIDEOSVR ADDRESS?  
*=NO      0=VIEW  #=YES
```

*If you press '\*' your session will end and you must power up the set again.*

---

**NOTE** Use the VolumeUp/Down keys to scroll through the menu. Press '\*' to reverse an entry (i.e., to correct an error) and press '#' to insert a decimal and move forward into another IP address field.

---

4. In the Video Server Setup Screen (shown below), press '#' to continue.

```
VIDEOSVR SETUP MODE  
^SCROLL  *BKSP  #FWD
```

5. Press '#' to enable present settings and continue.

```
USE PRESENT SETTINGS  
*=DISABLE  #=ENABLE
```

6. Enter the IP address of the 5700 VFA server.

```
INPUT VIDEO ADDRESS :  
xxx.xxx.xxx.xxx
```

7. Enter the Directory Number of the phone.

```
INPUT DN :
```

8. At the "Store In NVRAM?" prompt, press '#' to store the IP address in the phone's non-volatile memory.

```
STORE IN NVRAM?  
*=NO          #=YES
```

---

**NOTE** Even if the flash memory on the phone is upgraded, the IP address stored on the phone for the 5700 VFA server is static data that will be retained and used at powerup.

---

The phone will then reboot and from this point forward, will use the "Video" key to communicate to the 5700 VFA server at the stored IP address.

```
SAVING TO NVRAM  
DO NOT REMOVE POWER  
  
NVRAM SAVE COMPLETE  
REBOOTING
```

### To view current "Video" settings on a 5020 IP phone:

1. Unplug the power cord from the set to ensure it is off.
2. Hold down the top-right programmable key while plugging the power back in.  
*Ensure you hold down the "Video" key for at least three seconds while the phone powers up.*
3. The following display will appear -

```
SET VIDEOSVR ADDRESS?  
*=NO      0=VIEW  #=YES
```

*If you press '\*' your session will end and you must power up the set again.*

4. Press '0' and the following display will appear -

```
VIEW SETTINGS MENU  
USE ^ KEYS TO SCROLL
```

*This will display previously enabled static parameters. Use the volume keys to scroll through the menu and review the settings.*

### To remove programmed "Video" settings from a 5020 IP phone:

1. Unplug the power cord from the set to ensure it is off.
2. Hold down the top-right programmable key while plugging the power back in.  
*Ensure you hold down the "Video" key for at least three seconds while the phone powers up.*

- The following display will appear:

```
SET VIDEOSVR ADDRES?  
*=NO      0=VIEW  #=YES
```

*If you press '\*' your session will end and you must power up the set again.*

- Press '#' to enter static parameters.  
*Use the VolumeUp/Down keys to scroll through the menu. Press '\*' to reverse an entry (i.e., to correct an error) and press '#' to insert a decimal and move forward into another IP address field.*

```
VIDEOSVR SETUP MODE  
^SCROLL  *BKSP  #FWD
```

- To remove static parameters that were previously enabled, press '\*'.

```
USE PRESENT SETTINGS  
*=DISABLE  #=ENABLE
```

- At the "Save And Exit" screen, press '#'. The phone powers up again with no "Video" settings retained in its Flash memory.

```
SAVE AND EXIT?  
*=NO  #=YES
```





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